







CITY DOCUMENTS

OF THE

CITY OF LOWELL

MASSACHUSETTS

FOR THE

YEAR 1918-1919



EXTRACT FROM THE ORDINANCES OF LOWELL

CHAPTER VIII—CITY DOCUMENTS.

Section 5. All City Documents (except the Rules and Regulations for the Government of the Police and Fire Departments) shall be printed in pamphlet form of the size of the Annual Report of the School Committee.

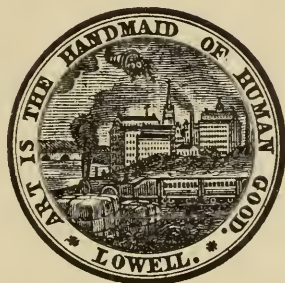
Section 6. All City Documents shall be bound together in one volume, under the direction of the City Clerk, and three or more copies shall be placed in the City Library, and one copy in the library of the Middlesex Mechanics' Association, one copy shall be sent to each City of the Commonwealth, to the library of the Harvard College, the Public Library of Boston, the State Library, the Smithsonian Institute at Washington, and the Old Residents' Historical Association of Lowell.

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2. Auditor's Eight-Third Annual Report of the Receipts and Expenditures of the City of Lowell, also General Information for the financial year ending December 31, 1918.
3. Seventh Annual Report of the Commissioner of Water Works, and the Reports of the Superintendent of Water Works and the City Engineer, for the year ending December 31, 1918.
4. Reports of the Births, Marriages and Deaths, 1918.
5. Report of the Board of Health, 1918.

6. Seventh Annual Report of Fire Commissioner, 1918.
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8. Report of the City Solicitor for the year ending December 1918.
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10. Annual Report of the Police Department, December 31, 1918.

Ninety-Third Annual Report
OF THE
School Committee
OF THE
CITY OF LOWELL
AND THE
Fifty-Fifth Annual Report
OF THE
Superintendent of Public Schools
1918



Lowell, Massachusetts
Butterfield Printing Company

CITY OF LOWELL

Office of the School Committee,
Lowell, Mass., April 29, 1919.

At a meeting of the School Committee, held on this date, it was voted to adopt the report of the Superintendent of Schools for 1918 as the report of the School Committee for that year and to authorize the printing of the report.

In accordance with this vote the report is herewith submitted.

HUGH J. MOLLOY,
Secretary.

ORGANIZATION

OF THE

School Committee

1918

JOHN H. LAMBERT, M. D., *Chairman
 RICHARD BRABROOK WALSH
 (Elected Chairman Jan. 28.)
 HUGH J. MOLLOY, Secretary

MEMBERS

	Term Expires
JULIAN B. KEYES 102 Third St.	1918
JOHN H. LAMBERT, M. D. 70 Wannalancit St.	1918
**JOHN C. LEGGAT 640 Broadway.	1918
WILLIAM R. THOMPSON, D. M. D. 68 Grove St.	1919
RICHARD BRABROOK WALSH 223 Parkview Ave.	1919

REGULAR MEETINGS OF THE SCHOOL COMMITTEE

January 29	May 28	September 24
February 26	June 25	October 29
March 26	July 30	November 26
April 30	August 27	December 31

*Resigned Chairmanship to enter active military service January 28.

**In military service in France.

ADMINISTRATION**Superintendent of Public Schools**

HUGH J. MOLLOY

Office in City Hall

Office Hours—One hour after the forenoon session of the schools;
at other times, including Saturdays, by appointment.

Clerk

FANNIE A. THOMPSON

Supervisor of Primary Grades

ALICE T. LEE

Office Hours—Mondays, Wednesdays and Fridays, 3.45 to 4.45 p. m.
at the office of the Superintendent of Schools.

Supervisor of Janitors

WILLIAM F. THORNTON

Office in City Hall, Third Floor

Office Hours—12 m. to 1 p. m.

Supply Agent

HENRY L. WILLIAMS

Office in School Supply Room, City Hall.

Clerk

FRED JOHNSTON

Hours—7.45 a. m. to 5 p. m.

Clerk in Attendance Office

MARY V. MALONEY

Attendance Officers

William F. Thornton, Camille Roussin, Henry L. Williams, John J. Walker,
Office—Third Floor of City Hall

Office Hours:

9 to 4 o'clock daily, except Saturday; Saturday 9 to 1 o'clock.

ORGANIZATION

OF THE

School Committee

1919

RICHARD BRABROOK WALSH, Chairman
 HUGH J. MOLLOY, Secretary

MEMBERS

	Term Expires
WILLIAM L. CROWLEY 25 Sarah Ave.	1920
JULIAN B. KEYES 65 Fairmount St.	1920
GEN. GARDNER W. PEARSON 59 Clitheroe St.	1920
WILLIAM R. THOMPSON, D. M. D. 68 Grove St.	1919
RICHARD BRABROOK WALSH 223 Parkview Ave.	1919

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January 28	May 27	September 30
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Office in City Hall, Third Floor

Office Hours—12 m. to 1 p. m.

Supply Agent**HENRY L. WILLIAMS**

Office in School Supply Room, City Hall.

Clerk**LEDA C. LAMONTAGNE****Stock-keeper in School Supply Department****FRED JOHNSTON****Clerk in Attendance Office****STELLA G. MALONEY****Attendance Officers**

William F. Thornton, Camille Roussin, Henry L. Williams, John J. Walker,
Vera E. Groves

Office—Third Floor of City Hall

Office Hours:

9 to 4 o'clock daily except Saturday; Saturday 9 to 1 o'clock.

REPORT OF THE Superintendent of Schools

Office of the Superintendent of Schools,
Lowell, Mass., April 29, 1919.

To the School Committee of Lowell:

The following report, for the year 1918, is respectfully submitted.

SUMMARY OF STATISTICS

Valuation of City	\$98,774,850.00
Valuation of school property	2,250,000.00
Rate of taxation (\$23.80 per \$1000)	
Expenditures for Day Schools	521,538.66
Expenditures for Evening Schools	13,958.99
Day School expenditures to total valuation .....	.528 per cent.
Day and Evening School expenditures to total valuation ....	.542 per cent.
Population by census of 1915	107,978
*Number of polls	28,202
Number of public day schools	62
One high, thirteen grammar, thirty-two primary, two mixed, fourteen kindergartens.	
Number of school buildings	51
Occupied by public schools, 49; occupied by vocational Schools, 2.	
Elected teachers, Dec. 31: on leave, 8; in service, 342; total, 350.	
Permanent substitutes	10
Subdivisions of Elected Teachers in service	
High, 15 men, 41 women; Grammar, 7 men, 144 women; Primary, 97 women; Mixed, 4 women; Kindergarten, 23 women; Drawing, 2 women; Music, 1 man, 1 woman; Sewing, 4 women; Manual Training, 2 men; Supervisor of Primary Grades, 1 woman.	
Teachers in Evening Schools, counting principals, term of 1917-1918	74
Pupils enrolled in Evening Schools, term of 1917-1918	2,676
High, 1,459; Elementary, 1,217.	

*(Soldiers exempted, 1500.)

Whole number of pupils enrolled in Day Schools, 1917-18 High, 1,635; Grammar, 6,443; Primary, 4,641; Mixed, 168; Kindergarten, 669.	13,556
Average number belonging to Day Schools, 1917-18 High, 1,423; Grammar, 5,704; Primary, 3,953; Mixed, 140; Kindergarten, 422.	11,642
Average Attendance, 1917-18 High, 1,368; Grammar, 5,289; Primary, 3,555; Mixed, 123; Kindergarten, 333.	10,668
Average per cent. of attendance, 1917-18 High, 96; Grammar, 92.7; Primary, 90; Mixed, 87.8; Kindergarten, 78.9.	
Average membership for year ending December, 1918 High, 1,390; Grammar, 5,672; Primary, 3,890; Mixed, 142; Kindergarten, 418.	11,512
Number of school rooms in actual use in June, 1918 High, 50; Grammar, 145; Primary, 98; Mixed, 4; Kindergarten, 15.	312
Number of school rooms in actual use in December, 1918 High, 50; Grammar, 144; Primary, 97; Mixed, 4; Kindergarten, 15.	310
Average number to each room for year ending June, 1918 High, 28.4; Grammar, 39.3; Primary, 40.3; Mixed, 35; Kindergarten, 28.	
Average number to each room for year ending December, 1918 High, 25.8; Grammar, 39.4; Primary, 40; Mixed, 35.5; Kindergarten, 28.	
*Average cost of each pupil for tuition only, based on average number belonging High, 49.33; Grammar, 27.65; Primary and Mixed, 23.63; Kindergarten, 39.45.	
Average cost per pupil, based on the average number be- longing, and on the total expenditures for tuition, janitor service, medical inspection, supervision, sup- plies, fuel, and all incidentals	\$46.52
*Not including training schools.	

VOCATIONAL SCHOOLS

Boys: Buildings, 1; rooms, 9; teachers, 8; pupils enrolled, 107; average number belonging, 79; average number attending, 73; per cent. of attendance, 92.4.

Girls: Buildings, 1; rooms, 7; teachers, 5; pupils enrolled, 53; average number belonging, 53; average number attending, 46; per cent. of attendance, 86.7.

RECEIPTS AND EXPENDITURES

Expenditures

Appropriated and Assessed in 1918	\$566,904.06
Amount Disbursed	573,204.06
Deficit	6,300.00

Teachers of Day Schools:

High School	\$ 68,568.17
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Grammar Schools—Butler School	\$16,685.89	
Colburn School	7,883.48	
Edson School	9,935.74	
Green School	11,525.59	
Greenhalge School	10,934.86	
Lincoln School	12,581.78	
Moody School	9,929.49	
Morey School	16,267.46	
Pawtucket School	11,130.78	
Riverside School	3,923.30	
Varnum School	15,637.89	
Washington School	9,848.70	
		\$136,284.96

Primary and Mixed Schools	\$ 83,814.36
Kindergartens	15,148.53
Special Teachers	10,450.70
Substitutes	7,102.25

Total paid for instruction in Day Schools	\$321,368.97
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School Physicians, Dentist and School Nurses:

School Physicians and Dentist	\$2,480.00	
School Nurses and Assistant to Dentist	1,818.50	
		\$ 4,298.50

*State agreement on Training Schools	\$ 30,700.66
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Janitors:

Janitors of Day Schools	\$ 55,146.98
Repairer of Furniture	\$ 927.30

Evening Schools:

Teachers, High and Elementary Schools	\$9,622.50	
Janitors	1,421.75	
		\$ 11,044.25

*See Page 28.

Cost of Supervision:

Superintendent of Schools	\$3,500.00	
Office Assistant	869.02	
Attendance Officers (four)	6,007.27	
Clerk in Attendance Office	341.56	
Assistant in Supply Room	989.00	
Clerk in Supply Room	35.00	\$ 11,741.85
Military Service		2,786.14
Deficit (from 1917)		9,447.54
		<hr/>
		\$ 23,975.53
Vocational School Teachers and Janitors	\$27,612.05	
Vocational School Deficit	1,306.21	
		<hr/>
		28,918.26
Total Salaries, Vocational Schools omitted		\$447,462.19
Total Salaries, Vocational Schools included		\$476,380.45
Expended for bills for the year, 1918:		
Coal (Evening Schools, \$784.30)		\$37,567.48
Wood	\$ 646.50	
Water (Evening Schools, \$35.00)	2,306.88	
Board of Truants	1,648.25	
Electricity (Evening Schools, \$1200.00)	2,163.17	
Gas	2,011.21	
General Repairs	1,587.30	
Electrical Repairs	739.50	
Furniture	926.39	
Books (Evening Schools, \$100.00)	4,148.98	
Paper and Supplies (Evening Schools, \$200.00)	7,886.51	
Kindergartens	420.00	
Printing (Evening Schools, \$125.75)	1,945.69	
Manual Training (Evening Schools, \$150.00)	1,051.30	
Janitor Supplies	2,168.67	
Apparatus	140.53	
Dental Supplies	195.91	
Medical Supplies	209.42	
Cooking, Etc.	2,684.10	
Material for Sewing	438.16	
Autos	1,279.61	
Graduations (Evening Schools, \$64.26)	811.74	
Regiment	518.52	
Telephones	681.51	
Transportation	1,167.78	
Typewriters	3,585.00	
Miscellaneous (Evening Schools, \$255.43)	378.39	
Appropriation Transfers	8,726.96	
		<hr/>
Total		\$ 88,035.46

Bills, Vocational School	\$ 8,788.15
Total of Bills, Vocational School included	\$ 96,823.61
Salaries and bills, Vocational School omitted	\$535,497.65
Salaries and bills, Vocational School included	\$573,204.06

Analysis of Vocational School Expense

Salaries of Day Teachers	\$ 21,044.81
Janitors of Day Schools	2,100.24
Salaries of Evening School Teachers	3,795.00
Janitors of Evening Schools	672.00
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Total of Salaries	\$ 27,612.05
Equipment and Supplies	8,788.15
Deficit (from 1917)	1,306.21
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Total Expenditures for Vocational School	\$ 37,706.41
Expended by Public Property Department	51,402.35

Receipts

The receipts by the general treasury on account of the school department during the year were as follows:

Tuition in public schools	\$ 11,319.75
Sale of text-books and supplies and badges	11.14
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	\$ 11,330.89
Vocational School Tuition and Earnings	\$ 5,060.18
Reimbursement from State	14,829.92
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	\$ 19,890.10
<hr/>	
	\$ 31,220.99

RECEIPTS AND EXPENDITURES (DISCUSSION)

The total amount expended by the School Committee for all purposes for the year 1918 was \$573,204.06, of which sum \$9,447.54 was a deficit carried over from the year 1917; the expenditure for the year 1917 was \$517,357.33. The increase in expenditure was \$46,499.19.

During the summer of 1918 the salary schedules were revised in general as follows: salaries of less than \$1,000 were increased twenty per cent.; salaries of \$1,000 or over and less than

\$1,500 were increased fifteen per cent.; salaries of \$1,500 or over were increased ten per cent.

The large items of increase are as follows: high school, \$4,204; grammar schools, \$8,836; primary and mixed schools, \$4,439; kindergartens, \$980; State agreement, \$3,307; the sum of \$2,786 was paid on account of employees of the department who entered the military service of the United States.

As a result of a smaller registration in the vocational school there was a reduction of \$3,094 in the expenditure for that school.

An increased expenditure of \$15,442 for bills is easily explained when one considers the high cost of fuel and all other materials; there was also an unusual expenditure of \$3,585 for typewriters for the high school.

The receipts by the general treasury on account of the school department, made up of tuition in the public and vocational schools and reimbursement by the State on account of the vocational school, was \$31,220.99. Therefore the net expenditure for the year 1918 was \$541,983.07.

There is bound to be further increase in the expenditures for schools in the immediate or near future, as it is generally conceded that the teachers of the city, the state, and country do not today receive salaries which are adequate or in keeping with the value and importance of their work and the professional preparation for their calling which is now demanded.

On page 7, in the Summary of Statistics, the valuation of the city is given as \$98,774,850; comparing this sum with the valuations for 1916 and 1917, it would appear that the taxable valuation of the city was somewhat stationary.

The city treasury received from the State as income from intangibles \$102,874.67; while it would not be correct to compute additional valuation from this sum as a basis, it is nevertheless only fair to say that the city derived an income equal to an income by taxation from a valuation of between four and five millions more than the recorded city valuation.

SCHOOL CENSUS

For a number of years, the census of children of school age was taken by attendance officers and school janitors; but, for the last two years the census has been taken through the schools themselves and there is a card enrolment of all children between five and sixteen years of age.

The chief attendance officer has informed me that the results obtained by the method now prescribed by law are better than those formerly obtained; they are not perfectly satisfactory, however, and they will not be until all who are connected with both public and private schools carry out the provisions of the law to the letter.

The following data were obtained from the census of 1918:

	Males	Females	Total
(a) Five years of age or over and under seven	1,575	1,563	3,138
(b) Seven years of age or over and under fourteen	9,331	9,286	18,617
(c) Fourteen years of age or over and under sixteen	997	1,015	2,012
	<hr/> 11,903	<hr/> 11,864	<hr/> 23,767

A comparison of these figures with the figures in the report for the year 1917 will show that there has been much more careful enumeration of children during the past year; the total for 1917 was 20,366 and, therefore, the figures for 1918 show an increase of over 3,000. This increase is of course partly due to the increase in population but it is largely due to a greater degree of thoroughness in keeping the census.

There are altogether too many children of elementary school age in Lowell who do not attend school as regularly as the law demands; the law requires that "each child between seven and fourteen years of age shall attend a public day school or some other day school approved by the school committee during the entire time the public schools are in session. The superintendent of schools, or teachers in so far as authorized by the superintendent or school committee, may excuse cases of necessary absence for causes other than physical or mental deficiency not exceeding five day sessions or ten half day sessions in any period of six months."

According to this quotation the law takes direct issue with those parents and guardians who assume that they have a right to keep children at home whenever they wish to do so and for reasons which are not considered sufficient under the law. The school laws of Massachusetts have sought to secure to children reasonable educational advantages, but it is only too well known that many children are denied these advantages through ignorance and neglect of parents and because public opinion does not seem to be quite ready for the strict enforcement of the law.

SCHOOL HOUSES

HIGH SCHOOL

In the report for 1917 it was stated that the work of providing adequate high school accommodations was at a complete standstill; the war with all its engrossing interests has been in part the cause of the failure to take up and put through the building of a new high school but there were also other causes which need not be referred to in this place which held back the prosecution of a most important and necessary enterprise.

The needs of the high school have been commented upon so often and at such length that it is unnecessary to say anything along that line in this report; all who are familiar with the present housing facilities for a high school and who have any adequate conception of what a high school should furnish are impatient at the delay in high school construction and are anxious to see the work begun and completed in the very near future.

ELEMENTARY SCHOOLS

In the school report of last year the completion of a fine addition to the Pawtucket school was recorded; this year we are able to record the practical completion of a large and fine addition to the Bartlett school.

The original building, erected about twenty-five years ago, was itself in need of many changes and improvements.

The entire Fuller and Warren system of sanitariums was removed and modern plumbing was installed, these changes necessitating the construction of a new sewer.

New drinking fountains and lavatories were installed.

As the original building had not been provided with means for lighting, a complete electric light system was installed and new lighting fixtures were put in.

The double wardrobes at the rear of the first and second floors were changed to small auxiliary rooms, separated from the corridor by partitions made almost entirely of glass. The other wardrobes were changed to store-rooms, to take the place of these wardrobes, alcoves with sliding doors and ventilated into the main room vents were provided in the class rooms.

Another steam boiler was installed to meet the demands of the enlarged school and the boiler-room was provided with electrical ash hoists.

The basement of the addition, which is mostly above the outside grade, contains one combination class and emergency room, one class room, one fan room, two plant rooms, and a large gymnasium and play room for boys; there are also several emergency closets, lavatories and shower baths.

Each of the first and second stories has three classrooms and two auxiliary rooms, all provided with wardrobes, blackboards, bookcases, etc.

The first floor has two conference rooms and the second floor has the supervisors' office and a rest room, these rooms being provided with private toilets; it should be noted also that each floor has emergency toilets.

The third floor of the old building was not finished and had been used as a storage room; it is now used for the cooking room, kitchen, etc.

The roof of the addition is flat and is covered with Spanish roofing tile; it is to be used as an open air class room; the brick walls around this roof are about eight feet high and they inclose a space which is one hundred thirty-five feet long and about forty-five feet wide.

The entire building, old and new, now has thirty-three classrooms, auxiliary and conference rooms, one cooking room, one music room, one manual-training room, two plant rooms, separate playrooms, storage rooms, etc. The building, which is used for training and observation purposes in connection with the State Normal School, will be very complete and will speak with emphasis of Lowell's desire to co-operate to the fullest extent with the State in the cause of education.

A word must be said in this place again of the need of increased school accommodations at the Morey, Washington, and Lincoln school districts; a number of the children in these districts are attending school under rather unfavorable conditions on account of the need of more room.

Nor should the public be allowed to lose sight of the fact that we still have too many small school buildings in the system and that groups of these should be gradually abandoned and replaced by larger and more modern buildings.

RESIGNATIONS, ELECTIONS, AND RETIREMENTS

The following lists give the changes in the roll of teachers and other employees, due to elections, resignations, and retirements:

Resigned

Mrs. Marie Sullivan Anselmo,	High School
Clara I. Farrington,	Clerk, Vocational School
Albra W. Hersome,	Schoolhouse Janitor
Annabelle C. Lowney,	High School
Mary V. Maloney,	Clerk, Attendance Office
Percy W. Price,	Vocational School
Alice Richardson,	High School
Frederick D. Rolfe,	Schoolhouse Janitor
Bertha M. Rowlandson,	Green School
Jesse D. Sallee,	High School
Grace R. Sanders,	Charles W. Morey School

Elected

Theodore A. Archibald,	Vocational School
Edward W. Bean,	Evening Vocational School
Katherine F. Brady,	Principal, Carter Street School
Wilbur R. Cole,	Vocational School
Mary F. Concannon,	Elementary
Mary G. Dudley,	Elementary
Regina Frappier,	Bartlett School
Walter O. French,	Asst. Instructor, Vocational School
Hazel A. Gardner,	Elementary
Wilbur W. Gavill,	Asst. Instructor Vocational School
Vera E. Groves,	Elementary
John E. Hart,	Schoolhouse Janitor
Albra W. Hersome,	Schoolhouse Janitor
Irene G. Hogan,	High School
Leda C. Lamontagne,	Clerk, School Supply Office
Ellen F. Lynch,	Elementary
Bernard F. McArdle,	Temporary Military Instructor in High School
Margaret E. McCann,	Clerk, Vocational School
Margery F. McMaster,	Elementary
Stella G. Moloney,	Clerk, Attendance Office
Alicè F. Morrill,	Elementary
Ellen T. Muldoon,	Elementary
Nellie F. Murphy,	Acting-Principal, Butler School
Anna C. O'Dwyer,	School Nurse
Flora A. Owen,	High School
James F. Peebles,	Vocational School
Elizabeth Provencher,	Acting-Principal, Green School
Thomas F. Quinn,	Schoolhouse Janitor
Ida L. Samuels,	High School
Ernest A. Shafter,	Vocational School
John J. Savage,	High School
Emma E. Y. Slaughter, M. D.	School Physician
Morton A. Sturtevant,	Head of the English Department in the High School
Mary A. Tobin,	High School
A. Edwin Wells,	Vocational School
Gertrude Weinbeck,	Elementary
Celia B. Wood,	Elementary
Ralph S. Webb,	Asst. Instructor, Vocational School

In Memoriam

Cornelius F. Callahan

Master of the Butler School

Isabella C. Vinall

Principal of the Carter Street School

Margaret J. Connors

Teacher in Carter Street School

Margery F. McMaster

Teacher in Pawtucket School

PUPILS BY GRADES

The following table shows the number of pupils in the schools, according to grades:

	Males	Females	Total
Kindergartens	216	219	435
Grade 1	828	733	1,561
" 2	710	653	1,363
" 3	544	548	1,092
" 4	747	667	1,414
" 5	597	582	1,179
" 6	503	477	980
" 7	433	459	892
" 8	379	373	752
" 9	247	363	610
" 10	219	260	479
" 11	159	212	371
" 12	123	190	313
" 13	95	119	214
" 14	11	6	17
Total	5,811	5,861	11,672

HIGH SCHOOL

The high school graduated a class of 302 in June and there was an entering class of 538 in September. Of this class 382 were from public schools, 86 from private schools, 48 from towns which have certificate privileges, 6 entered by examination, and 16 came from out-of-town schools.

The grammar schools sent 82 per cent. (a considerable increase over 1917) of their graduates to the high school; the average age of the entering class was fourteen years, four months.

The graduation exercises were held in Keith's Theatre on June 26th; the names of the Carney Medal students, and the names of the students who were awarded honorable mention are here given:

CARNEY MEDALS

Bridie Mary Sheridan
Edith Tilton Miles
Dorothy Wright

Albert Lionel Bourgeois
George Bernstein
William Lowe Abrams

HONORABLE MENTION FOR SCHOLARSHIP

Ada Lillian Abbott	Helen Gertrude Donahue
Dorothy Marguerite Morris	Hazel Julia Palmer
Lester Ames Sherburne	Doris Evon Traver

HONORABLE MENTION FOR ATTENDANCE

Katherine Elizabeth Fay	Mildred Josephine Holmes
Muriel Leach	George Stephen Mahoney
Grace Delilah Martin	George Leonard Palmgren

MEDICAL AND DENTAL SUPERVISION

The health of the children in the public schools is supervised by nine physicians and two nurses under the control of the school committee. Four additional physicians are employed by the Board of Health to supervise the private schools and their names and the schools they supervise are given below:

- Dr. F. P. Murphy**—Immaculate Conception, St. Peter's School and Orphan Asylum, Sacred Heart, St. Stanislaus.
Dr. R. C. Stewart—Our Lady of Lourdes, St. Louis's, St. Patrick's for Boys, St. Patrick's for Girls.
Dr. J. N. Drury—Greek Orthodox, St. Michael's, St. Mary's, Mrs. Paxson's Private School.
Dr. R. Migneault—St. Joseph's for Boys, St. Joseph's for Girls, St. Joseph's Pawtucketville, St. Joseph's Kindergarten.

The school dental room is in the Worthen Street School, located in Worthen Street between Market Street and Broadway; this is the sixth year of its operation. The room is open on all school days, including days when the storm signal is sounded, from nine until twelve in the forenoon; appointments are made by the school physician, nurses and teachers and are under the supervision of Miss Lantagne, the doctor's assistant. The following summary of the work done during the year is submitted:

Number of children receiving treatment	739
Number of teeth filled	522
Number of teeth treated	123
Number of teeth extracted	1,163
Number of tooth aches treated	363
Number of children's teeth treated	363

SCHOOL NURSING

Medical inspection of schools began in France about the beginning of the last century and was introduced into the United States in 1894; it was begun in the Lowell schools in 1915.

The school nursing is in the hands of two graduate nurses who divide the schools into two sections; each nurse has about twenty-two schools to visit each week.

In most of the schools the nurse announces her presence by ringing a bell; in others a note is sent to the teacher to notify them of the nurse's arrival. The nurse then visits those rooms which require her presence. When the school physician is in the school at the time of her visit the nurse assists him in whatever work he may have planned. Children who are awaiting re-admission to school after absence on account of sickness receive attention first and if, in the judgment of the physician, they are to be re-admitted they are sent at once to their classrooms. If for any reason such children cannot be returned to their classrooms they are sent home with instructions as to the time to return; in some cases it will be necessary for the nurse to call at their home to give further instructions to the mother.

Close attention is given those pupils who are referred to the physician by the teacher and children who are found to be suffering from minor skin diseases and pediculosis are referred to the nurses for treatment.

The school nurse does valuable work in detecting or preventing contagious diseases and in the correction of physical defects; she assists in the education of the children and, sometimes, of their parents in the principles of personal and public hygiene. She reports suspected contagious diseases and this is very important work.

The school nurses keep careful and complete records of the work which is done along their line in the schools and these records should be of considerable value in showing at some later day what the preliminary work in school nursing was in the city.

The sub-joined table will give interesting data concerning the work of nurses.

School visits	1,262
Pupils inspected (new)	8,122
Pupils inspected (old)	12,460

DEFECTS FOUND

Defective teeth	3,346
Defective speech	50
Defective eyes	121
Pediculosis (inspected for)	5,221
Enlarged tonsils	1,223
Impetigo	135
Eczema	22
Excluded to be vaccinated	412
Organic heart trouble	31
Unclean	971

TREATMENTS

Treatments in schools	1,205
Tonsils and adenoids (hospital)	65
Tonsils and adenoids (private)	8
Consultations with teachers and pupils	8,097
Dental clinic (new)	246
Dental clinic (old)	142
Private dentist	214
Home visits (new)	239
Home visits (old)	93
Hygiene talks and tooth brush drills	588
Whooping cough (excluded)	35
Measles	5
Pupils examined for vacation (country week)	8
Pupils examined for fresh air room	16
Transferred to fresh air room	4

Mention should be made in this place of the closing of the schools for a month in the fall term of the year on account of the influenza epidemic and most creditable mention should be made of the part which the men and women employed by the school department played in connection with that period of sickness.

Requested by the Board of Health at noon on Sunday to arrange for a canvass of the city in order to locate all cases of sickness, the teachers met in the forenoon of the following Monday and districted the city and proceeded to make a thorough and accurate house to house examination of the city.

As a result, very full and interesting data were placed at the disposal of the Board of Health; moreover, a surprisingly plain proof was given to the public of the efficiency and promptness with which a highly organized school department can plan and carry through a piece of work of this nature.

SIGHT AND HEARING TESTS

	Pupils Examined	Defective Sight	Per Cent. Defective	Defective Hearing	Per Cent. Defective	Parents Notified
High	1,394	73	.05	7	.005	80
Grammar	5,824	882	.15	109	.02	612
Primary	4,191	330	.08	75	.02	255
Total	11,409	1,285	.11	191	.016	947

SCHOOL SAVINGS BANKS

The statement of the deposits on account of the school savings banks for the year 1918 shows only very slight increase over the amount for 1917. It is somewhat surprising that any gain is shown because there were so many and so varied demands made upon the time and resources of the children for other causes.

SCHOOL	Deposits Dec. 31, 1917	Deposits Dec. 31, 1918
Bartlett	\$ 5,416.36	\$ 5,596.67
Butler	4,639.17	4,216.35
Colburn	2,318.40	2,692.42
Edson	2,615.59	2,891.99
Green	3,276.62	3,134.75
Greenhalge	4,709.94	4,893.69
Lincoln	7,759.46	7,773.04
Moody	5,094.56	4,936.13
Charles W. Morey	9,013.36	8,829.86
Pawtucket	7,322.58	7,037.93
Riverside	1,600.02	1,815.24
Varnum	6,291.51	6,710.91
Washington	2,747.68	2,914.08
Total	\$62,805.25	\$63,443.06

MANUAL TRAINING AND COOKING

The work in cooking and manual training has been making very satisfactory progress in the schools. Nearly all of the grammar schools are provided with rooms and equipment for these branches of the work and, on the whole, the rooms and equipment have been provided at a remarkably low cost.

In spite of the belief in many minds, and this belief generally has no reasonable foundation, instruction in manual training and cooking is not a fad; on the contrary, practically all elementary schools and most high schools in progressive communities have work or courses in manual training and cooking, and it is altogether likely that in the near future we shall see more rather than less of these and similar activities in the work of elementary and high schools.

VOCATIONAL SCHOOL

The eighth year of the school opened with an enrolment of eighty-nine boys and forty-five girls. The only requirement for admission to the day classes of the Vocational School, so far as age is concerned, is that a pupil must not be less than fourteen and not more than twenty-five years of age.

All pupils must be residents of the state; for pupils who do not reside in Lowell there is a tuition charge of \$100 payable by the city or town of the non-resident pupil, as the school is absolutely free to the individual pupil, regardless of his place of residence.

The work is so arranged that a boy may enter at any time and may advance as rapidly as his industry and ability will allow.

The school offers preliminary training for boys as carpenters, electricians, cabinet-makers, machinists, and automobile repairers.

The boys are trained mostly on productive work in all departments and the work is of such a practical nature that they fit naturally into the industry in advanced apprenticeship standing. Besides the shop work the boys are given English, arithmetic, civics and citizenship, and hygiene.

A course of practical science is given to the boys in the electrical, machine and auto repair classes.

The school for girls is organized for the training of girls for the activities and duties of everyday life; the course comprises instruction in housekeeping, dressmaking, millinery and power machine work.

In February, 1916, the girls' school opened the dining rooms at the State Normal School and since then has served dinners and luncheons to the faculty and students of the school. This gives a valuable training in preparing food in large quantities and also in serving; the practice proved to be so valuable it seemed wise to make it a permanent part of the curriculum.

The school sent out a class of eleven graduates on June 25, 1918.

The State Board of Education exercises a considerable control over the school, as the state has agreed to pay half of the maintenance expense of the school. In order to secure reimbursement from the state, the courses of study, equipment, buildings, and the work of the teachers must be approved by the agents of the State Board of Education.

PENMANSHIP

During recent years the work of teaching and supervising penmanship in the schools has been more highly systematized and considerable attention has been given to the instruction of the teachers themselves in penmanship.

About four years ago, after a rather long period in which there was no systematic supervision of penmanship in the schools, a beginning of supervision was made by the employment of a teacher from the commercial department of the high school for three afternoons each week in the grammar grades of the city.

The employment of this part-time supervisor did little more than to show the necessity of and the benefits of a considerable amount of supervision in penmanship.

For something over a year now three teachers from the commercial department of the high school have been employed for three afternoons in each week to supervise the work in the grammar grades; their supervision has been efficient and is relatively very inexpensive and the system they have arranged has been regarded by competent penmanship authorities as very superior.

When we shall have arranged for an extension of their work into the primary grades and shall have provided pupils with the most up-to-date material, we are confident that we shall secure results which will compare favorably with the best results secured in any other city.

WAR ACTIVITIES AND MILITARY SERVICE

Lowell has given many evidences in the past of the patriotic spirit and enterprise of her people; her conduct with respect to the great war has been in keeping with her best and noblest traditions.

The school department may be justly proud of the part which it has played in the field and at home in the activities of the war. First is presented the highly honorable list of those who entered the military and naval service of the country.

DR. JOHN H. LAMBERT,

Captain, Medical Corps, Base Hospital No. 7, A. E. F.

MR. JOHN C. LEGGAT,

Captain, 104th Inf., attached Headquarters, 52nd Inf. Brigade, 26th Division, A. E. F.

MAJOR COLBY T. KITTREDGE,

Major, 4th Pioneer Regt., A. E. F.

MR. C. FRED CAMPBELL,

1st Lieutenant, 4th Pioneer Regt., A. E. F.

MR. JAMES F. CONWAY,

2nd Lieutenant, Field Artillery, U. S. A.

MR. JOSEPH G. PYNE,

Seaman, Second Class, 1st Naval District.

MR. HERBERT R. BAKER,

Band Sergeant, 4th Pioneer Regt., A. E. F.

DR. NATHAN PULSIFER,
Major, Medical Corps., Regt. Surgeon, 304th Inf., 85th Division,
A. E. F.

MAJOR WALTER R. JEYES,
Captain, Inf., U. S. A.

MR. LEO A. KING,
2nd Lieutenant, Quartermaster Corps, U. S. A.

MR. PAUL L. PERKINS,
2nd Lieutenant, Aviation Section, Military Aeronautics, Flying Status,
U. S. A.

DR. EDWARD O. TABOR,
1st Lieutenant, Medical Corps., U. S. A.

MARGUERITE J. O'DWYER,
A. N. C., 3rd Army, A. E. F.

ABIGAIL BACON,
Reconstruction Aide, Medical Dept., U. S. A.

The schools were thoroughly and efficiently organized for the work of the Junior Red Cross and the public and private schools of Lowell, joined with the schools of all of Northern Middlesex, collected large sums of money and materials and did a vast amount of work.

The schools were also thoroughly organized for work in connection with the Victory Loan and the Victory Boys and Victory Girls made a most creditable showing.

SCHOOL AND HOME GARDENS

On account of the somewhat critical food situation growing out of the war, the Federal and State authorities took a very great interest in the promotion of school and home gardens. There had already been in previous years very commendable work in and throughout the schools along this line under the supervision of Miss Lee.

Under the special appeal of the President through the United States Bureau of Education that every child should have a garden the United States school garden army was organized and teachers and pupils were inspired to greater efforts in garden work.

Approximately 5500 children had home gardens last year and were enrolled in the United States school garden army. In each school a regiment was formed and in every room there was a company with a captain and lieutenants.

To assist in carrying on this work seeds were supplied by Hon. John Jacob Rogers, the Board of Trade gave \$50 and leaflets with simple directions for planting were furnished by the school department.

The economical value of garden work was emphasized in the school rooms and became an important factor in the teaching of civics.

It is impossible to give a comprehensive report of the results of the labor but from some garden reports which have come to hand the following items are worthy of notice.

From one packet of lettuce seed a second grade boy raised one hundred lettuce plants.

A boy in a grammar school raised three hundred pounds of squash from five seeds.

A boy from another grammar school exhibited a squash that weighed sixty pounds.

The value of vegetables harvested by children in one grammar school was \$1024.

STATE AGREEMENT AND TRAINING SCHOOLS

When the State Normal School was established at Lowell in 1897, an agreement was entered into by the State Board of Education and School Committee of Lowell for the proper and harmonious direction of certain activities of the schools which were of common interest to the state and city.

In June, 1914, the State Board of Education and the School Committee adopted a new agreement which, in their judgment, would better serve the needs of the state and provide a practical field for the students of the normal schools and would at the same time interfere in no way with the purposes and work of the public schools.

The schools mentioned in the new agreement and known as the Training Schools are the Bartlett, the New Moody Street, and the Lexington Avenue Schools.

Just as in the old agreement, teachers and janitors for these schools are nominated by the principal of the Normal School and elected by the School Committee. The agreement of the year 1914 differs mainly from the original agreement in this particular, that the expenses of maintaining the training schools, not including costs of repairs, medical inspection and attendance service, shall be paid for by the Commonwealth and that the city of Lowell shall pay annually into the Treasury of the Commonwealth in equal quarterly instalments in January, April, June and October, a sum of money equal to the product found by multiplying the per capita cost of maintenance in the kindergarten and elementary schools for the preceding fiscal year ending December 31 by the average membership of the training schools for the same year: "cost of maintenance and instruction" shall include expenses for everything except repairs, medical inspection and service of attendance officers.

The computation, by which the amount to be paid the state for the year 1919 is arrived at, is given below and will perhaps make the financial part of the agreement more easily understood.

Total Expenditure by the School Committee	\$573,204.06
Deduct (Included in 1918 Computation)	10,753.75
	<hr/>
	\$562,450.31

For the Computation for 1919

Deduct as follows:

Vocational School	\$ 37,706.41
High School Tuition	68,568.17
High School Janitors	8,221.19
High School Bills	21,052.38
Medical and Dental Supplies	405.33
Dentist, Assistant, Physicians, Nurses	4,298.50
Attendance Officers	4,648.83
Evening School Tuition	9,622.50
Evening School Janitors	1,421.75
Evening School Bills	2,914.74
Repairs (furniture and plumbing)	8,599.06

General Repairs	1,587.30	
Electrical Repairs	739.50	
		<hr/>
Total	\$169,785.66	
Cost of Maintenance for State agreement computation		\$392,664.65
Average membership in elementary schools, 1918		10,121.00
Grammar, 5,671; Primary, 4,032; Kindergarten, 418.		
Average membership in training schools, 1918		877
Bartlett grammar, 442; Bartlett primary, 224; Bartlett kindergarten, 34; New Moody, 138; Lexington Ave., 39.		
\$392,664.65 divided by 10,121 equals \$38.80, cost per pupil.		
\$38.80 multiplied by 877 equals \$34,027.60, amount due the State for 1919.		

EVENING SCHOOLS

It can now be said with absolute truth of the Lowell Evening Schools that, so far as organization and the character of the teaching force are concerned, they differ in no way from the day schools. It was never fair and it never will be fair to have it understood that persons may be employed in evening school work who would not be employed in the day schools.

There is a great field for evening school work in Lowell today; not simply among the illiterate aliens, for their number is constantly decreasing, but among the boys and girls, the young men and young women who have gone into employment at an early age and without securing the advantages in education which the state and the city freely offer them.

Our evening schools have been maintained on an efficient basis now for several years and it is quite generally known that we are endeavoring to offer to the youth of the city the best which can be offered under the circumstances; but the response has not as yet been nearly what it should be and we can only hope that in time a better spirit of ambition will be aroused in many boys and girls as well as in parents to spend in profitable work in the evening schools at least a portion of the time which they are spending in idleness or to their disadvantage.

All of the principals and teachers of the elementary schools are men and women from the day schools and the principal and teachers of the high school are teachers from the day high and

the day elementary schools with very few exceptions, those exceptions existing only when there are not sufficient day school teachers to do the work.

NATURALIZATION

When, in June, 1918, a typewritten list of the names of the men who attended the naturalization class, together with a statement as to their attendance at the meetings of the class, was presented at the Superior Court during its session for final papers, the presiding judge expressed surprise that such a class was established and cared for by the school department and he complimented the school department for its interest in the matter.

The first sessions of the class were held in December, 1915, and the lessons were prepared by the congressman of this district, the mayor of the city, and the twelve masters of the city schools. For the past two years, however, we have used the course prepared by the Department of University Extension because it covered practically the work which our own lessons covered and, being in print, could be placed in the hands of the men who were taking the course.

The work of the class has been greatly appreciated and we feel that it is a reasonable and useful extension of the activities of the public schools. The purpose of the class is to instruct men who are seeking their final papers in the history and institutions of the country and to give them free of charge information on all matters which concern naturalization.

SCHEDULE OF SCHOOL SESSIONS AND VACATIONS

High School:—8.25 A. M. to 1.25 P. M.
 Elementary Schools:—8.30 A. M. to 11.30 A. M. and 1.45 P. M. to 3.45 P. M.
 Middlesex Village:—9 A. M. to 12 M. and 1.30 P. M. to 3.30 P. M.
 New Moody Street:—8.45 A. M. to 11.45 A. M. and 1.45 P. M. to 3.45 P. M.
 Lexington Avenue:—8.45 A. M. to 11.45 A. M. and 1 P. M. to 3 P. M.
 Vocational School, Boys':—8.30 A. M. to 12 M. and 12.30 P. M. to 3.30 P. M.
 Vocational School, Girls':—8.30 A. M. to 12.30 P. M. and 1 P. M. to 3.30 P. M.
 Evening High School:—7 to 9.
 Evening Vocational Schools:—7.15 to 9.15.
 Evening Elementary Schools:—7 to 9.

VACATIONS

Summer Vacation—from the Wednesday preceding the last Friday in June to the second Monday in September.

The week which includes Christmas.

The week beginning with the ninth Monday and the week beginning with the eighteenth Monday after the Christmas vacation.

Hours for ringing the no-school signal:—7.30 A. M., 12.45 P. M., and 6 P. M.

SUMMARY OF EVENING SCHOOL ATTENDANCE
For Term 1917-1918

SCHOOLS	Number of Rooms in Each School	Teachers at Beginning of Term	Teachers at Close of Term	Evenings Taught	Whole Number on Registers			Average Number Belonging			Average Attendance			Per Cent. of Attendance	Minors Unable to Read and Write in English		
					Males	Females	Total	Males	Females	Total	Males	Females	Total		Males	Females	Total
High	37	37	33	74	679	780	1459	278	406	684	210	322	532	78			
Cabot Street	2	2	2	69		79	79		58	58		51	51	89		2	2
Colburn	6	7	5	69	81	65	146	25	49	74	20	39	59	80	12	30	42
Edson	5	6	5	69	100	49	149	57	32	89	45	30	75	83	25	21	46
Green	12	16	16	69	415	264	679	163	189	352	153	167	320	91	26	61	87
Greenhalge	6	6	4	69	110	54	164	30	24	54	24	20	44	82	13	20	33
Totals	68	74	65		1385	1291	2676	553	758	1111	1452	629	1081	82%	76	134	210

REPORT OF THE ATTENDANCE OFFICERS FOR THE YEAR 1918

	Total Number Cases Investigated	Absentees	Truants	Wandering on the Streets	Visited Second Time	Visited Third Time	Violating the Rules of School	Arrested	Sent to the Middlesex County Training School	Placed on Probation	Prosecution of Parents	* Employment Cert. Issued 14 to 16 yrs.	† Educational Cert. Issued 16 to 21 yrs.	† Educational Cert. Issued 16 to 21 yrs.
January.....	371	331	40	53	44	6	0	0	0	0	0	298	524	35
February.....	230	195	35	48	16	2	0	2	2	0	0	274	556	50
March.....	334	268	66	53	34	6	0	3	1	2	0	310	696	37
April	387	329	58	55	33	7	0	4	2	2	0	352	701	65
May	360	277	83	62	37	5	0	4	4	0	0	458	720	46
June.....	174	131	43	53	20	3	0	2	1	1	0	579	877	51
July												566	857	7
August.....												521	708	68
September	132	117	15	42	6	1	0	0	0	0	0	461	802	58
October.....	6	5	1	0	0	0	0	0	0	0	0	287	546	58
November.....	524	454	70	65	45	10	0	0	0	0	0	323	496	23
December.....	232	194	38	72	15	2	0	1	1	0	0	230	484	29
Totals.....	2750	2301	449	503	250	42	0	16	11	5	0	4659	7967	527

* Employment Certificates Issued

4659

† Literate Educational Certificates Issued

7967

Temporary Certificates Issued

527

Vacation Certificates Issued

12

Home Cards Issued

258

Total

13427

CONCLUSION

In the report of a year ago reference was made in this place to the terrible war which at that time was completely deranging the world. Toward the end of the school year of 1918 the November Armistice brought that war practically to an end.

Our nation, like other nations, learned many lessons during those awful days; they saw the weakness of many things which they had regarded as strong and as of the utmost importance; they also learned, and to an extent of which they had never dreamed, how wonderfully the free institutions and popular education of America had prepared us for the awful burdens and responsibilities of war.

If, during the stress and fearful anxieties of a world-war, testimony has been given of the wonderful part which the schools have played in the success of the nation at war, surely in the days of peace we should come to a greater realization than we had ever before of the necessity of fostering and advancing in every possible way the education of the youth of the country.

The best way to prepare a nation and its men and women for war is to prepare them as effectively as possible for the activities of peace.

Respectfully submitted,

HUGH J. MOLLOY,
Superintendent.

Roll of Teachers

Giving name, subjects or grade taught and residence

HIGH SCHOOL

Kirk and Anne Streets

Herbert D. Bixby, Head-Master	19	Rutland St.	\$3,000
Frederick R. Woodward, Sub-Master, Head Dept. Mathematics, 80 Georgia Ave.	2,600		
Fred Albinson, Bookkeeping	8	Newbury St.	1,800
Jennie L. Allen, Physics	947	Middlesex St.	1,380
Alice H. Bacheller, Typewriting, Com. Law, Com. Arithmetic, 21 Huntington St.	1,380		
Adelaide Baker, Head of Department of French	136	Myrtle St.	1,380
Orton E. Beach, Stenography and Office Practice	858	Chelmsford St. ..	1,610
Emma L. Bradley, French	484	Westford St.	1,380
Elmer G. Brennon, Geometry	97	Georgia Ave.	1,900
*C. Fred Campbell, Manual Training	89	Georgia Ave.	1,100
Marietta Cassidy, Latin	4	Fifth Ave.,	1,380
M. Mabel Cassidy, English and French	44	B St.	1,080
Albert W. Chilson, Manual Training	Y. M. C. A.		1,300
Ethel V. Cleaves, Physical Instructor	30	Hanks St.	1,080
Alice L. Cluin, Latin and Algebra	130	Fort Hill Ave. ..	960
James F. Conway, Chemistry	115	Nesmith St.	1,700
Grace D. Donovan, History and English	256	Branch St.	1,265
Ruth L. Eaton, Assistant to Principal	59	Pine St.	1,080
Esther Elliott, Algebra and Latin	25	Fairview St.	960
Edith C. Erskine, Botany, German, History and English	25	Clark Road	960
Ethel M. Everett, Algebra and Greek History	617	Westford St.	1,380
Bertha W. Ferguson, Bookkeeping	100	Myrtle St.	1,380
Florence R. Foote, French, History and English	28	Wannalancit St. ..	1,150
Grace M. Goodhue, Latin and History	120	School St.	1,380
Peter J. Gulesian, Manual Training	29	Whitney Ave.	1,610
E. Irene Hogan, Algebra	117	Clark Road	780
Bessie E. Huntoon, Physiology and French	64	Warwick St.	1,380
Elizabeth Irish, Algebra and English	11	Willow St.	780
Mary C. Joyce, Elocution	82	Eleventh St.	1,080
Mary H. Killpartrick, History, English, and Com. Geography, 27 Maryland Ave.	1,380		
Genieve E. Lawrence, Algebra and Com. Geography	53	Berkeley Ave.	960
Frances R. H. Leggat, Physical Instructor	640	Broadway	840
Albert D. Mack, Head of Commercial Department	17	Summit St.	2,170
Mary L. Martin, English, Latin and History	39	Durant St.	1,080
Frances U. Masterson, History and English	352	Christian St.	1,080
H. Estelle Moors, Algebra and English	104	Moore St.	960
Elizabeth H. Murphy, French, Com. Law, and Com. Arithmetic, 159 White St.	1,380		
John D. McKinley, Latin and German	474	Beacon St.	1,080
Loretta A. McManmon, Algebra and English	Dracut, Mass.		960
Ellen E. McQuade, History, English and German	318	Andover St.	1,080
Flora A. Owen, Stenography, Typewriting and Bookkeeping, 42 Huntington St.	1,150		
Joseph G. Pyne, Greek History, English and Physiology	823	Central St.	1,400
Mary E. Quirbach, English and Algebra	50	Highland St.	1,080
Gertrude A. Rodliff, English	Chelmsford Centre ..		1,380
Ida L. Samuels, Stenography and Bookkeeping	56	Fifth Ave.	1,150
John J. Savage, Greek, History, English, Physiology, 34 Benton Rd., Somerville	1,300		
Ruth L. Sawyer, English and Algebra	169	Fairmount St. ..	840
Charles E. Seede, Manual Training	88	Warwick St.	1,800
Millie A. Severance, Physics, History, and English	302	Stevens St.	1,150
James A. Shanley, Bookkeeping	364	Lawrence St.	1,700
Margaret V. Spear, French	576	Westford St.	1,380
Mary G. Stevens, History and English	126	Fort Hill Ave. ..	1,380

Alice O. Stickney, Astronomy, Geology, Latin, and English, 599 School St....	1,150
Violet Stocks, College Mathematics and Geometry	141 Parkview Ave. ... 1,080
Morton A. Sturtevant, Head of Department of English	143 Clark Road 1,800
Edward J. Thompson, Spanish	Chelmsford Centre .. 1,380
Mary E. Tobin, Algebra, Com. Law, and Arithmetic	52 Highland St. 1,150
Susie L. D. Watson, American History, and Geometry ..	390 E. Merrimack St. 1,380
*Nathan Pulsifer, M. D., Medical Director	473 Beacon St. 200
*Major Colby T. Kittredge, Military Instructor	48 South Walker St. . 500
Bernard F. McArdle, Military Instructor	35 Thirteenth St. 500

*In Military Service

Janitors

Michael H. Lynch	10 Orford St.
*Herbert R. Baker	9 Shedd St.
Arthur H. Dana	73 Fletcher St.
Michael H. Finnegan, Temporary	141 Fayette St.
William Mack	37 May St.
Bernard H. Maguire	55 Grove St.
John J. Moran	43 Anderson St.
Charles E. Thornton	47 Loring St.

GRAMMAR SCHOOLS

BARTLETT SCHOOL

Wannalancit Street

(Normal Training School)

Charlotte M. Murkland, Principal	179 Pine St. ....\$2,100
Sara E. Ames, gr. 9, 8, 7, History, Civics, and Sewing ..	418 Walker St. 1,150
Belle F. Batchelder, gr. 6	66 Arlington St. 1,140
Kathleen E. Driscoll, gr. 9, 8, 7, Geography	47 Grace St. 1,080
Katherine F. Farley, gr. 5	Lowell, R. F. D. 3 .. 1,140
Eleanor J. LeLacheur, gr. 4	128 Fourth Ave. 1,080
E. Belle Perham, gr. 4	100 Riverside St. 1,140
Belle A. Prescott, gr. 9, 8, 7, Literature	68 Mt. Washington St. 1,150
Maria W. Roberts, gr. 5 and 4	571 Westford St. 1,140
Charles E. Seede, gr. 9, 8, 7, Manual Training	88 Warwick St. 450
M. Beatrice Shca, gr. 9, 8, 7, Office and Penmanship ..	267 Walker St. 900
Celia Standish, gr. 9, 8, 7, Composition and Music	96 Grove St. 1,080
A. Gertrude Stiles, gr. 6	2 Prescott St., Cambridge 1,140
Alice D. Sunbury, gr. 9, 8, 7, Gram., Domestic Science	179 Pine St. 1,150
Amy L. Tucke, gr. 9, 8, 7, Algebra, Arithmetic, Music ..	111 Butterfield St. .. 1,150

Janitors

William J. Hunt	3 Fourth St.
Thomas F. Hannafin	15 Sargent St.

BUTLER SCHOOL

Gorham Street

Nellie F. Murphy, gr. 9, Acting Principal	85 Sherman St. ....\$1,380
Delia T. Brady, gr. 7	183 Chapel St. 1,080
Helen L. Clark, gr. 6	220 High St. 1,080
Marguerite J. Cronin, gr. 9	228 Plain St. 1,080
Mary E. Crowley, gr. 5	903 Gorham St. 1,080
Mary L. Crowley, gr. 6	438 Westford St. 1,080
Annie J. Devine, gr. 7	154 Carlisle St. 1,080
Peter J. Gulesian, Manual Training	18 Wildwood St., Chelmsford 400
*Margaret G. Hyde, gr. 4	900 Central St. 1,080
Katherine E. Kelley, gr. 7	74 Gates St. 1,080
Mary E. Lane, gr. 8, Domestic Science	14 Ellsworth St. 1,180
Mary L. McSorley, gr. 5	40 Huntington St. .. 1,080
**Alice F. Morrill, gr. 4	32 June St. 900

ROLL OF TEACHERS

37

Alice C. O'Brien, gr. 5	300 Wilder St.	1,080
*Mary G. Quinn, gr. 4	28 Chapel St.	1,080
Sadie E. Tully, gr. 8	111 Westford St. ...	1,080

Janitors

Terrence F. Casey	163 Howard
Thomas M. Keegan	22 Ellsworth St.
*Room in Carter St. School.	
**Room in Weed St. School.	

COLBURN SCHOOL

Lawrence Street, near Charles

Helen M. Shean, Principal	260 High Street	\$1,380
Anna J. Cawley, gr. 8	85 Rogers St.	900
Lena Collins, gr. 7	1106 Mammoth Rd.	900
Sadie A. Connor, gr. 4	73 Pleasant St.	900
Elizabeth A. Conway, gr. 5	219 Church St.	900
Catoline A. Downing, gr. 5	56 Huntington St.	900
Julia M. Driscoll, gr. 6	47 Grace St.	900
Margaret C. Fox, gr. 9	8 Eddy St.	1,080
Louise C. Thomas, gr. 4	85 Eleventh St.	900

Janitors

Michael Finnegan (On Leave of Absence)	235 Stackpole St.
Patrick J. Mahoney (Temp. Assignment)	16 Lyons St.

EDSON SCHOOL

Highland Street

*Leo A. King, Master	4 Astor St.	\$1,600
Frances M. Webster, gr. 9, Acting Prin.	45 Varney St.	1,080
Susan F. Burbank, gr. 6	Chelmsford Centre	960
Mary F. Concannon, gr. 9	204 Pleasant St.	600
Anna E. Donovan, gr. 7 and 8	26 Madison St.	1,080
Marianna L. Donovan, gr. 5, Domestic Science	256 Branch St.	1,000
Kate J. Hayes, gr. 6	15 Floyd St.	1,080
Delia C. Maloney, gr. 5	70 Elm St.	1,080
Helen L. Mansfield, gr. 4	12 White St.	600
Margie F. Marren, gr. 7	86 Rolfe St.	1,080
Anna T. McCarron, gr. 4	228 High St.	1,060
Marietta E. O'Neil, gr. 8	11 Carter Ave.	900

Janitors

John H. Condon	96 Midland St.
William P. Black	900 Central St.
*Absent on Military Service	

GREEN SCHOOL

Merrimack Street

Paul L. Perkins, Master	240 Jewett St.	\$1,600
Hannah M. Barrows, gr. 8	19 Newhall St.	1,080
Agnes T. Courtney, gr. 5	11 Marsh St.	1,080
Carrie E. Erskine, Special	74 Fort Hill Ave.	1,080
Jennie E. Fay, gr. 6	115 Stackpole St.	1,080
Mary V. Johnson, gr. 4	183 Wilder St.	1,080
Jane T. Johnson, Special	184 Baldwin St.	600
Katherine F. McCarthy, gr. 5	647 Market St.	1,080
M. Alice McCue, gr. 6	536 Rogers St.	900
Lizzie A. Nolan, gr. 7	210 Pawtucket St.	1,080
Katherine C. O'Neill, Special	175 Walker St.	900
Elizabeth Provencher, gr. 9	22 West Bowers St.	1,080
A. Lillian Walsh, gr. 4, Domestic Science	145 Mammoth Rd.	880

Janitors

Oscar W. Brown	35 Livingston Ave.
William S. McKenzie, Jr.	87 Gershom Ave.

ROLL OF TEACHERS

GREENHALGE SCHOOL

Ennell Street, Centralville

Arthur K. Whitcomb, Master	2	Belmont St.	\$2420
Mary Alice Cochrane, gr. 7	230	Cabot St.	900
Mary M. Cowell, gr. 7	22	London St.	780
Josephine S. Dunlavy, gr. 5	76	Canton St.	1,080
Esther G. Donlon, gr. 9	756	Westford St.	1,180
Alice L. Joyce, gr. 6	82	Eleventh St.	780
Helen Kohawn, gr. 4	63	Thirteenth St.	1,080
Alice A. Masterson, gr. 5	35	Oak St.	1,080
Annie L. Mahoney, gr. 4	22	Burlington Ave.	1,080
Ellen T. Muldoon, gr. 8	998	Lakeview Ave.	900
Leona M. Small, gr. 6	46	Whitney Ave.	900

Janitors

John Barrett	19	Burnside St.
David E. Cornock	848	Bridge St.

ABRAHAM LINCOLN SCHOOL

Chelmsford Street

James L. Mellen, Master	74	Pentucket Ave.	\$2420
Margaret T. Donovan, gr. 6	42	Claire St.	900
Mabel W. Ewings, gr. 5	3	Astor St.	1,080
Ellen L. Floyd, gr. 4	124	Stevens St.	1,080
Irma V. Hodgman, gr. 9	632	Westford St.	1,080
Margaret S. Jamieson, gr. 5	37	Viola St.	1,080
Margaret G. McDonald, gr. 6	397	Broadway	1,080
Elsie M. Puffer, gr. 4	942	Middlesex St.	1,080
Julia G. Slaterry, gr. 4	122	Hoyt Ave.	900
Margaret M. Sparks, gr. 9	160	Fort Hill Ave.	1,080
Bride T. Sweeney, gr. 7	138	Pleasant St.	1,080
Sadie A. Taff, gr. 8	235	Stackpole St.	660

Janitors

Edward Cullen	9	Auburn St.
Thomas Quinn	30	Weed St.

MOODY SCHOOL

High and Rogers Streets

William S. Greene, Master	302	Nesmith St.	\$2420
Katharine F. Baker, gr. 8	665	Andover St.	900
Mary F. Carolan, gr. 9	256	Concord St.	780
Frances E. Garrity, gr. 5	74	Stevens St.	1,080
Frances E. Hardman, gr. 5	18	Astor St.	1,080
Fannie G. Hobbs, gr. 4	74	Fort Hill Ave.	960
Mae Hogan, gr. 6	82	Varney St.	780
Cora E. Jones, gr. 4	62	Huntington St.	960
Frances C. Noonan, gr. 6	115	Pleasant St.	780
Celia B. Wood, gr. 7	92	Fort Hill Ave.	660

Janitors

Dennis A. Harrington	495	High St.
John O'Connor	102	Pleasant St.

CHARLES W. MOREY SCHOOL

Pine and Wilder Streets

William W. Dennett, Master	400	Stevens St.	\$2,200
Lillian E. Alister, gr. 5	71	Wedge St.	900
Leonora K. Battles, gr. 8	21	Chester St.	1,080
Ella M. Breen, gr. 6	17	Florence Ave.	1,080
Anna A. Burnham, gr. 7	14	Belmont St.	1,080
Anna T. Coffey, gr. 8	189	Wilder St.	960
Annie V. Donoghue, gr. 9	11	Wesley St.	1,080

ROLL OF TEACHERS

39

Mary F. Foss, gr. 9, Domestic Science, gr. 8 and 9	Chelmsford Centre	1,180
Hazel A. Gardner, gr. 4 and 5	15 Columbus Ave.	660
Minnie C. Gray, gr. 6	106 Liberty St.	1,080
C. Ethel Hale, gr. 7	15 Robbins St.	1,080
Charlotte E. Parsons, gr. 4	485 Westford St.	960
Grace Scribner, gr. 4	70 Tyler Park	1,080
Lulu Turner, gr. 5	33 Warwick St.	1,080
Katharine M. Usher, gr. 6 and 7	32 South Walker St.	1,080
*Grace F. Ward, gr. 5	438 Westford St.	1,080
Estelle L. Whitney, gr. 9	13 Oakland St.	1,080
*Room in the Franklin School		

Janitors

Elmer E. Harder	30 Pine St.
Harrison L. Morgan	29 C St.

PAWTUCKET SCHOOL Mammoth Road, Pawtucketville

William P. Barry, Master	1280 Middlesex St.	\$2420
Delia F. Briscoe, gr. 8	Dracut, R. F. D. No. 3	900
Corinna G. Cover, gr. 4	12 Lombard St.	1,080
Clotilda A. Delaney, gr. 4	82 Colonial Ave.	960
Alice G. Donohoe, gr. 5	50 Linden St.	900
Goldie M. Gardner, gr. 5	15 Columbus Ave.	1,080
Loretta M. Kinsela, gr. 6 and 7	50 B St.	780
Alice H. Lynch, gr. 7	137 Riverside St.	900
Anna L. McNabb, gr. 7 and 8	63 Dunfey St.	780
Julia B. Riordan, gr. 9, Domestic Science	27 Woodward Ave.	1,180
Charlotte C. Walsh, gr. 6	85 Eleventh St.	1,080

Janitors

James S. Somerset	104 Woodward Ave.
John Roarke	9 Sixth Ave.

RIVERSIDE SCHOOL Woburn Street, Wigginvillle

Rosalie T. Burns, Prin., gr. 8 and 9	39 Whitehead Ave.	\$1280
Elizabeth A. Gilinson, gr. 5	3 Bourne St.	960
Christine M. Kane, gr. 4	339 High St.	1,080
Harriet L. Wheeler, gr. 6 and 7	64 Morton	1,080

Janitor

John H. D. Toy	7 Nelson Ave.
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VARNUM SCHOOL Myrtle Street, Centralville

Henry H. Harris, Master	93 Eleventh St.	\$2420
Florence E. Archibald, gr. 5	198 Third St.	900
Agnes Bailey, gr. 9	Majestic Chambers	1,080
Ellen L. Daley, gr. 7	239 Stevens St.	780
Rose A. Dowd, gr. 6	127 Beacon St.	1,080
Agnes T. Fay, gr. 6	123 Third St.	1,080
Mary A. Fay, gr. 6	123 Third St.	1,080
Grace E. Frye, gr. 8, Domestic Science	93 Vernon St.	1,060
Ruth F. Hathaway, gr. 4	106 Durant St.	660
Ada A. Hoole, gr. 4	101 Myrtle St.	1,080
Margaret F. Howe, gr. 5	308 South St.	1,080
Alice R. Keese, gr. 5	89 Georgia Ave.	1,080
Elizabeth C. Kennedy, gr. 9	223 Pine St.	1,080

ROLL OF TEACHERS

Mary R. Seery, gr. 7	127	Beacon St.	900
Grace M. Thurber, gr. 7	42	Mansur St.	960
Julia M. Williams, gr. 4	156	Sixth St.	1,080

Janitors

Adam McElroy	670	Bridge St.
John H. Nolan	65	Fulton St.

WASHINGTON SCHOOL

Lang Street, near Inland

John E. Barr, Master, Literature	168	Sixth St.	\$2,420
Carrie L. Brown, gr. 4	18	Bourne St.	900
Helen A. Dow, gr. 8, 9, Algebra, Grammar	149	B St.	1,080
Rose C. Geary, gr. 8 and 9. History and Penmanship	49	Whipple St.	900
Laura F. Greene, gr. 5	179	Warwick St.	900
Gertrude T. Keyes, gr. 6, 7, Geography	62	Pine St.	900
Myrtle M. Killpartrick, gr. 4. Cooking	27	Maryland Ave.	1,000
Alice G. McGilly, gr. 7 and 6, History	75	Hoyt Ave.	900
Olive J. Palm, gr. 7 and 6, Literature and Grammar	806	Stevens St.	900
Esther A. Sanders, gr. 5 and 4	79	Methuen St.	780

Janitors

David H. Angluin	27	Crowley St.
Timothy Moynahan	38	Whipple St.

PRIMARY SCHOOLS

The grammar school to which each primary belongs is indicated in parenthesis.

AGAWAM STREET (Butler)

Agawam and Barrington Streets

Mary A. Fay, Principal, gr. 3 and 2	115	Stackpole St.	\$1,130
Anna M. Higgins, gr. 3, 2, 1		North Billerica	1,010

Janitor

John H. Hallett	17	London St.
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AMES STREET (Colburn)

Lawrence and Ames Streets

Rose E. MacVay, Principal, gr. 2	46	Linden St.	\$1,130
Julia C. O'Sullivan, gr. 1	105	Mt. Washington St.	780
Mary C. Timmons, gr. 3	326	Concord St.	1,080

Janitor

John T. McCarty	9	Puffer Ave.
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BARTLETT

(In Bartlett School)

Louise F. Mahoney, gr. 2 (Temporary Assignment)	550	Westford St.	\$ 550
Regina B. Frappier, gr. 1	26	Hampshire St.	900
Essie E. Roche, gr. 3 and 2	1835	Middlesex St.	1,140
Mary E. Snow, gr. 1	89	School St.	1,140
Mary F. Wallace, gr. 3	76	Walker St.	850

ROLL OF TEACHERS

41

BILLINGS STREET (Greenhalge)

Annie M. Robbins, Principal, gr. 3 and 2 .116 Highland St.\$1,130
Elizabeth H. Seede, gr. 2 and 188 Warwick St. 1,080

Janitor

James Hounsell704 Bridge St.

CABOT STREET (Green)

Mary T. Whelley, Prin., gr. 3254 Parkview Ave.\$1,130
Loretta A. Hannafin, gr. 215 Sargent St. 960
Ellen F. Lynch, Special137 Riverside St. 960
Mary J. Murphy, gr. 134 Butterfield St. 1,080

Janitor

Thomas A. Green512 Gorham St.

CARTER STREET (Butler)

Katherine F. Brady, Principal, gr. 1173 Chapel St.\$1,130
Henrietta I. Grady, gr. 239 Lundberg St. 780
Helen R. Halloran, gr. 3546 E. Merrimack St. 780

Janitor

John Cochran, (Temporary)10 rear 90 Appleton St.
Provisional Appointment

CENTRAL STREET (Colburn)

Elizabeth G. Lawler, Principal, gr. 3, 2 ..260 High St.\$1,130
Helen A. Drury, gr. 2 and 129 Princeton St. 1,080

Janitor

William P. Black900 Central St.

CHARLES STREET (Edson)

Alice T. Owens, Prin., gr. 34 Belmont St.\$1,130
Ella E. Gardner, gr. 2 and 1366 Walker St. 1,080
Marietta G. Gormley, gr. 2 22 Lyon St. 1,080
Margaret A. Harrahan, gr. 1114 Bellevue St. 1,080

Janitor

James F. Leary249 E. Merrimack St.

COLBURN (Coiburn)

Charles Street, near Lawrence

Anna M. Courtney, Principal, gr. 3404 Fletcher St.\$1,130
Elizabeth R. Connell, gr. 119 Fort Hill Ave. 900
Mary A. Hartley, Special51 Pine St. 1,080
Katherine M. Tobin, gr. 2 and 152 Highland St. 960

Janitor

John Scott23 Meadowcroft St.

ROLL OF TEACHERS

CROSS STREET (Bartlett)

Cross St., between Fletcher and Mt. Vernon Streets

Ida J. Clarke, Principal, gr. 3	96	Grove St.	\$1,130
Anna T. Coburn, gr. 2	39	Arlington St.	1,080
Katherine Kelley, gr. 1	434	Fletcher St.	1,080

Janitor

William Kennedy	73	Fletcher St.
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DOVER STREET (Morey)

Dover Street, between Middlesex and Grove Streets

Clara B. Horne, Principal, gr. 3	106	Chestnut St.	\$1,130
Clementine H. Bowers, gr. 2	60	Loring St.	1,080
Bertha Gardner, gr. 1	32	Robbins St.	1,080

Janitor

Frank J. Burch	24	So. Canton St.
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ELIOT (Edson)

Favor and Summer Streets

Ellen A. Stillings, Principal, gr. 2 and 1 .24	Bellevue St.	\$1,130
Ellen A. Corbett, gr. 3 .....32	Highland St.	1,080
Loyola McCann, gr. 1 .....17	Wentworth Ave.	1,080
Nellie T. O'Grady, gr. 2625	Central St.	1,080

Janitor

Charles J. McCabe	318	High St.
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FRANKLIN (Morey)

Branch and Middlesex Streets

Kate G. Jones, Principal, gr. 1	240	Jewett St.	\$1,130
Ethel H. Chalifoux, gr. 2	157	Mt. Vernon St.	780
Mary E. Richardson, gr. 3	55	Victoria St.	960

Janitor

Joseph Provost	54	Queen St.
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GRAND STREET (Lincoln)

Marion E. Greene, Principal, gr. 3	405	Westford St.	\$1,130
Jennie M. Bennett, gr. 2	81	Gates St.	1,080
*Mary J. Moynahan, gr. 1	28	Windsor St.	900

*Room in Howard Street School.

Janitor

Ernest McGowan	21	Coburn St.
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GREENHALGE

(In Greenhalge School)

Ruth Crowell, gr. 1	69	Fort Hill Ave.	\$ 900
Mary G. Dudley, gr. 2	126	Coburn St.	600
Blanche E. Marshall, gr. 1	445	Merrimack St.	1,080
Martha Rogers, gr. 3	131	Cumberland Rd.	1,080

ROLL OF TEACHERS

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KIRK STREET (Green) Kirk and Lee Streets

Eliza A. Davis, Principal, gr. 3, 2, 1 Billerica, P. O. Box 147\$1,130

Janitor

John J. Manchester 66 Willow St

LAKEVIEW AVENUE (Greenhalge) Lakeview Avenue

Margaret J. McCluskey, Principal, gr. 3..246 Methuen St.\$1,130
Anna F. Joyce, gr. 182 Eleventh St. 1,080
Katherine P. O'Brian, gr. 228 West Adams St. 900

Janitor

Joseph Naphon39 West St.

LAURA LEE (Washington) Plain and Powell Streets

Flora H. Sprague, Principal, gr. 3110 Branch St.\$1,180
Sara M. Dean, gr. 1244 Parker St. 1,080
Emma M. Graham, gr. 1419 Chelmsford St. 900
Lena M. Robinson, gr. 3, 268 South Walker St. 1,080
Lilla M. Stanley, gr. 22 Horn St. 1,080

Janitor

William J. Hunt17 A St.

LEXINGTON AVENUE (Bartlett)

Carrie M. Hart, Principal, gr. 1, 2, 3, 4, 5\$1,140

Janitor

Timothy F. Rohan65 Claire St.

LONDON STREET (Butler) London and West Streets

Elizabeth R. Maguire, Principal, gr. 3 ...53 Nesmith St.\$1,130
Margaret L. Haggerty, gr. 2, 117 Bellevue St. 1,080
*Mary F. Hill, gr. 2, 1Chelmsford St., Chelmsford, Mass. . 1,080
*Room in West London Street School

Janitor

Peter J. Hunt59 Madison St.

LYON STREET (Butler) Lyon and Central Streets

Kate F. Murphy, Prin., gr. 3 and 2870 Gorham St.\$1,130
Gertrude A. Hessian, gr. 2 and 1134 Pleasant St. 660
Mary J. McCarry, gr. 2 and 11600 Gorham St. 1,080

Janitor

Michael Finnegan235 Stackpole St.

ROLL OF TEACHERS

MIDDLESEX VILLAGE (Morey)

Middlesex and Cornell Streets

Harriet F. Wakefield, Principal, gr. 6, 5	.79	Stevens St.	.....\$1,130
Gertrude E. Dane, 2 and 1	.....225	Gibson St.	.....1,080
Mary J. Reardon, 4 and 316	Marginal St.780

Janitor

P. Henry Driscoll16	Edwards St.
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NEW MOODY STREET (Bartlett)

New Moody Street

Addie B. Merrill, Prin., gr. 3465	Bridge St.\$1,250
Anna I. Cassidy, gr. 1	.....4	Fifth Ave.	.....1,140
Grace C. Delany, gr. 2	.....82	Colonial Ave.	.....1,140
*Maud M. Hardy, gr. 1	Chelmsford, R. F. D. No 1, Box 11A	1,140
*Room in Pawtucket School			

Janitor

Thomas J. McGee199	Mt. Hope St.
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PAWTUCKET PRIMARY

(In Pawtucket Primary)

Eugenia L. Hogan, gr. 3 and 2106	Avon St.\$1,080
Alberta M. McQuesten, gr. 2, 1	.....118	D St.	.....\$ 600

PINE STREET (Morey)

Pine and Gibson Streets

Carrie J. Bailey, Principal, gr. 3	.....56	Loring	.....\$1,130
Helen D. Swain, gr. 1	.....418	Walker St.	.....1,080
Grace I. Washburn, gr. 2390	Wilder St.1,080

Janitor

Joseph M. Hunt169	Broadway
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POND STREET (Moody)

Pond and High Streets, Belvidere

Adelaide Crowley, Principal, gr. 2, 1115	Fort Hill Ave.\$1,130
*Maud E. Green, gr. 1	.....238	E. Merrimack St.	.....1,080
Mary I. Halloran, gr. 2	.....546	E. Merrimack St.	.....1,080
**Alice E. Ramsay, gr. 3	.....124	Third St.	.....1,080
*Room in High Street School			
**Room in Moody School			

Janitor

Timothy F. Harrington156	Andover St.
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ROLL OF TEACHERS

45

POWELL STREET (Morey)

Powell Street, near Liberty

Viola A. Hamblett, Principal, gr. 2, 1 ...58 Bellevue St.\$1,130
Ellen J. Piper, gr. 3 and 255 Norcross St. 1,080

Janitor

George A. Tobin, Temporary797 Merrimack St.
(Provisional Appointment)

RIVERSIDE

(In Riverside School)

Charlotte O. Lowe, gr. 2, 1North Chelmsford\$ 960
Etta M. Smith, gr. 3 and 21118 Lawrence St. 1,080

SYCAMORE STREET (Moody)

Sycamore Street

Florence E. Rowell, Principal, gr. 3, 2 ...65 Huntington St.\$1,130
Elizabeth B. Dame, gr. 2 and 1178 First St. 1,130

Janitor

John J. Conway38 Laurel St.

TENTH STREET (Varnum)

Cor. Tenth and Varnum Streets

Mary F. Beane, Prin., gr. 3212 Tenth St.\$1,130
Alice M. French, gr. 121 May St. 960
Alice A. Holtham, gr. 2 and 11107 Bridge St. 1,080
Fannie H. Murphy, gr. 242 Twelfth St.1,080

Janitor

Winfield S. Cross55 Seventh St.

WASHINGTON

(In Washington School)

Clara M. Everett, gr. 175 Beacon St.\$1,080
Annie E. Irving, gr. 3 and 228 Walnut St. 1,080
Gertrude B. McQuade, gr. 2 and 1225 Summer St. 900

WEED STREET (Butler)

Lilla M. McEvoy, Principal, gr. 3, 2210 Pawtucket St.\$ 1,130
gr. 8.

Janitor

John N. Palm369 Lawrence St.

ROLL OF TEACHERS

WEST SIXTH STREET (Varnum)

West Sixth Street, between Coburn and Jewett Streets, Centralville

Stella J. Allen, Principal, gr. 3	115	Third St.	\$1,130
Elizabeth F. Lamere, gr. 2	63	Canton St.	1,080
Mabel A. Metcalf, gr. 2 and 1	93	Vernon St.	1,080
Laura H. Palmer, gr. 1	78	Hildreth St.	1,080

Janitor

Patrick J. Clark	199	Pleasant St.	
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WORTHEN STREET (Green)

Worthen Street, between Market and Broadway

Esther V. Green, Prin., gr. 2	434	Westford St.	\$1,130
Mary R. Marren, gr. 3	86	Rolfe St.	1,080
Mary E. Meehan, gr. 1	228	Worthen St.	\$ 1,080

Janitor

John J. Manchester	66	Willow St.	
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KINDERGARTENS

AGAWAM STREET

(In Agawam Street Primary)

Sarah G. Sparks, Principal	59	Elm St.	\$ 840
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BARTLETT

(In Cross Street Primary)

Helen W. Noyes, Principal	102	Butman Road	\$ 840
Alta L. DeMallie	22	Parkview Ave.	650

CENTRAL STREET

(In Central Street Primary)

Katherine C. Early, Principal	256	E. Merrimack St.	840
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CHARLES STREET

(In Colburn Primary)

Mabel D. Nickerson, Principal	125	Clark Road	\$ 840
S. Alice Knapp	305	E. Merrimack St.	780

DOVER STREET

(In Dover Street Primary)

Elizabeth A. Wilson, Principal	15	South Canton St.	\$ 840
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ROLL OF TEACHERS

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FRANKLIN (In Franklin Primary)

N. Grace Taylor, Principal	11	Ware St.	\$ 840
Helen S. Livingston	39	Garden Road	780

HOWARD STREET (In Howard Street Primary)

Gertrude A. Roberts, Principal	Chelmsford, Mass., P. O. Box No. 61	\$ 840
Hortense M. Lamere	13 Ralph St.	650

LAKEVIEW AVENUE (In Lakeview Avenue Primary)

Ella M. Penn, Principal	31 Sanders Ave.	\$ 840
Celina L. Lalime	28 Flemmings St.	720

LAURA LEE (In Laura Lee Primary)

Katharine M. Crowley, Principal	115 Fort Hill Ave.	\$ 840
Doris Childs	256 Gibson St.	600

MOODY (In High Street Primary)

Marietta King, Principal	205 Stackpole St.	\$ 840
Gertrude B. Crowley	115 Fort Hill Ave.	780

PAWTUCKET Mammoth Road

Hortense Tabor, Principal	83 Riverside St.	\$ 840
*Abigail Bacon	Bedford, Mass.	660

Janitor

Timothy Rohan	65 Claire St.
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PINE STREET (In Pine Street Primary)

Louie I. Smith, Principal	19 Holden St.	\$ 840
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VARNUM (In Varnum School)

Edith A. Howitt, Principal	52 Myrtle St.	\$ 840
Marion Simpson	67 Methuen St.	660

ROLL OF TEACHERS

WEED STREET

(In Weed Street Primary)

Alice F. Seeton, Principal	150 Mammoth Rd.	\$ 840
Evelyn L. Staples	52 Princeton St.	600

VOCATIONAL SCHOOL

Mann School Building, Broadway

Principal

Thomas F. Fisher, Principal	121 Livingston Ave.	\$2,500
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Assistant to Principal

Margaret E. McCann	196 Aiken Ave.	
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Instructor of Machine Shop Practice

Theodore S. Archibald	198 Third St.	1,400
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Head of Machine Department, and Teacher of Shop Science

Maurice A. Butterfield	12 June St.	1,900
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Instructor in General and Related Subjects

James F. Peebles	65 Freemont St., Winthrop, Mass. ..	1,500
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Instructor in Electrical Department

Ernest A. Shafter	373 Beacon St.	1,400
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Instructor in Machine Shop Department

Charles J. Welsh	77 Billings St.	1,500
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Head of Woodworking Department

Fred F. Wiggin	Chelmsford, Mass.	1,600
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Janitor

George Daley	98 Walker St.	
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GIRLS' DEPARTMENT

Morrill School Building

Department Head

Esther M. Downing,.....	434 Westford St.	\$1,280
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Head Teacher of Housekeeping Department

Ruberta M. Bramhall	84 Tenth St.	1,140
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Teacher of Dressmaking and Millinery

Mary H. Mehan	140 Sixth St.	960
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Head Teacher of Dressmaking

Anna M. O'Day	599 Central St.	1,020
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Teacher of Cooking

Ruth Upton	63 Mt. Vernon St.	900
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Janitor

Theodore Towner	13 Third St.	
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ROLL OF TEACHERS

49

SPECIAL TEACHERS

Musical Director

Frederick O. Blunt14 Bellevue St.\$1,610

Assistant in Music

Jessie M. Hagar418 Walker St.\$1,150

Supervisors of Drawing

Addie E. EdwardsMajestic Chambers\$1,150

Helene R. Abels43 Nicollet St.\$1,080

Teachers of Sewing

Ida J. Flint, Teacher of Sewing200 Liberty St.\$1,140

Esther M. Owens4 Belmont St.\$ 960

Agnes R. Burns427 Lakeview Ave.\$ 900

Grace E. StevensChelmsford, Mass.\$ 840

Manual Training

Ralph A. LuceChelmsford, Mass., R. F. D. No. 1 ..\$1,610

Arthur Lundwall9 Osgood Ave.\$1,200

Supervisors of Penmanship

Fred Albinson8 Newbury St.\$ 300

Albert D. Mack17 Summit St.\$ 300

James A. Shanley364 Lawrence St.\$ 300

Dental Clinic

(In Worthen Street School)

Dr. E. A. Kent11 Harris Ave.\$ 800

Assistant to Dentist

Eva M. Lantagne14 Albion St.\$ 400

SCHOOL PHYSICIANS

Giving Names of Schools Supervised

C. Stoyke Baker, M. D.4 Bond St.

Colburn Gr., Colburn Pri., Edson, Ames St., Central St.

John F. Boyle, M. D.32 Whipple St.

Butler, Lyon St., Carter St., Weed St., London St.

James J. Cassidy, M. D.111 Riverside St.

Green, Charles St., Worthen St., Kirk St., Cabot St., Vocational—Boys' Dept.

Winifred M. Wools-Devine, M. D.27 Parkview Ave.

Pawtucket, Greenhalge, Lakeview Ave., New Moody St., Lexington Ave.

George O. Lavalley, M. D.790 Merrimack St.

Varnum, Billings St., West Sixth St., Tenth St.

Joseph A. Mehan, M. D.4 Park St.

Bartlett, Franklin, Cross St., Vocational—Girls' Dept.

Charles M. Roughan, M. D.105 Merrill Ave.

Moody, Riverside, Pond St., Agawam St., Sycamore St.

Emma Young Slaughter, M. D.545 School St.

Morey, Washington, Powell St., Middlesex Village, Dover St., Pine St.

Forster H. Smith, M. D.50 Putnam Ave.

Lincoln, Laura Lee, Grand St., Eliot

SCHOOL NURSES

Anna C. O'Dwyer148 Midland St.\$ 840

Marietta M. Dwyer23 Sidney St.\$ 840

*Marguerite J. O'Dwyer

*Absent on Military Service

ROLL OF TEACHERS

ABSENT ON LEAVE

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|---|---|
| *Herbert R. Baker, Janitor. | *Leo A. King, Master of Edson School. |
| *C. Fred Campbell, High School. | *Major Colby T. Kittredge, Military Instructor. |
| Bethia S. Keith, Lincoln School. | Quennie A. Manchester, High School. |
| *Abigail Bacon, Pawtucket Kindergarten. | *Nathan Pulsifer, M. D., Medical Director. |
| *Marguerite J. O'Dwyer, School Nurse. | *Edward O. Tabor, M. D., School Physician |
| *On Military Service. | |

PERMANENT SUBSTITUTES

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|---|-------------------------------------|
| Sara D. Ivers, East Chelmsford, Mass. | A. Gertrude Ready, 87 Fulton St. |
| Dorothy F. Riordan, 8 Suttle Ave. | Mary T. Jones, 168 Sixth St. |
| Lettie R. McMaster, 56 Rolfe St. | Harriet L. McAloon, 112 Sixth St. |
| Helen Madeline Sullivan, 250 Rogers St. | Louise F. Mahoney, 550 Westford St. |
| Catherine T. Gillick, 998 Lakeview Ave. | Nelle D. Horner, 353 Westford St. |

Substitute

Sarah Swan Griffin, 121 South Walker St.

EVENING SCHOOLS

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|---|--------------------|
| Henry H. Harris, Principal | 93 Eleventh St. |
| E. Helen Rivet, Principal's Assistant | 271 Beacon St. |
| Alice H. Bacheller | 21 Huntington St. |
| Typewriting | |
| Orton E. Beach | 858 Chelmsford St. |
| Stenography III | |
| Albertine Bernier | 91 West Sixth St. |
| Stenography III | |
| Elmer G. Brennon | 97 Georgia Ave. |
| Commercial Arithmetic, Algebra and Geometry | |
| M. Mabel Cassidy | 44 B St. |
| Spelling, General and American History | |
| Josephine A. Charbonneau | 218 Riverside St. |
| Stenography I | |
| Albert W. Chilson | Y. M. C. A. |
| Manual Training | |
| Alice L. Cluin | 130 Fort Hill Ave. |
| Elementary Grammar | |
| Grace D. Donovan | 256 Branch St. |
| Grammar | |
| Ruth L. Eaton | 59 Pine St. |
| Typewriting I | |
| Peter J. Gulesian | 59 Berkeley Ave. |
| Manual Training | |
| Elizabeth Irish | 11 Willow St. |
| Latin and Spelling | |
| Elizabeth C. Kennedy | 223 Pine St. |
| Penmanship | |

ROLL OF TEACHERS

51

Raymond J. Kenney	1	West View St.
Stenography		
Mary H. Killpartrick	27	Maryland Ave.
Commercial Geography, Spelling, Civil Government		
Charles A. King	4	Astor St.
Bookkeeping I		
Sara Laporte	76	June St.
French		
Mildred E. Leeds	184	First St.
Stenography		
Albert D. Mack	17	Summit St.
Bookkeeping III		
Head of Commercial Department		
John D. McKinley	474	Beacon St.
Advanced Arithmetic		
Loretta A. McManmon	57	Second Ave.
Arithmetic		
Adelaide E. Noyes	126	Fort Hill Ave.
Elocution		
Flora A. Owen	42	Huntington St.
Stenography II		
Ruth L. Sawyer	169	Fairmount St.
Arithmetic		
Charles E. Seede	88	Warwick St.
Manual Training		
Margaret L. Seeton	12	Third Ave.
Stenography II		
James A. Shanley	364	Lawrence St.
Bookkeeping		
M. Beatrice Shea	267	Walker St.
Penmanship		
Mary G. Stevens	126	Fort Hill Ave.
Civil Service and Literature		
Alice O. Stickney	599	School St.
Rhetoric and Graduation English		
Morton A. Sturtevant	143	Clark Road
Commercial Correspondence		
Sadie A. Taff	235	Stackpole St.
Penmanship		
Edward J. Thompson		Chelmsford Centre
Physics, Chemistry and Spanish		
Mary E. Tobin	52	Highland St.
Grammar		

ELEMENTARY SCHOOLS

EDSON

Leo A. King, Principal (On Leave)	4	Astor St.
Helen M. Shean, Acting-Principal	260	High St.
Marguerite J. Cronin	228	Plain St.
Marietta G. Gormley	22	Lyon St.
Mary E. Lane	14	Ellsworth St.
Delia C. Maloney	70	Elm St.
Sadie E. Tully	105	Westford St.

ROLL OF TEACHERS

GREEN

Paul L. Perkins, Principal	240	Jewett St.
Esther G. Donlan	756	Westford St.
Helen A. Dow	149	B St.
Agnes T. Fay	123	Third St.
Mary A. Fay	123	Third St.
Margaret C. Fox	8	Eddy St.
Mary V. Johnson	183	Wilda St.
Marietta King	205	Stackpole St.
Elizabeth G. Lawler	260	High St.
Margie F. Marren	86	Rolfe St.
Mary R. Marren	86	Rolfe St.
Alice A. Masterson	35	Oak St.
Elizabeth Provencher	22	West Bowers St.

Rooms in Cabot Street School
(For Girls Only)

Rose A. Dowd	127	Beacon St.
Maud E. Green	238	E. Merrimack St.

GREENHALGE

William W. Dennett, Principal	400	Stevens St.
Addie B. Merrill	465	Bridge St.
Annie M. Robbins	116	Highland Ave.
Martha Rogers	131	Cumberland Road

EVENING VOCATIONAL SCHOOL

Men's Department

George H. Dozois	11	Spaulding St.
Alvah Taylor	41	So. Walker St.
Fred F. Wiggins		Chelmsford
Chester W. MacDonald	22	Bellevue St.
Edwin Wells	178	Perry St.
Maurice A. Butterfield	12	June St.
Theodore S. Archibald	198	Third St.
Carl A. Bishop	3	Blodgett St.
Charles F. Welsh	77	Billings St.
Guy Whitnev	132	B St.
Edward W. Bean	486	Wilder St.
Michael F. Donahue	381	Dutton St.
John H. McGuinness	682	Broadway

Girls' Department

Esther M. Downing, Department Head	434	Westford St.
Ruberta M. Bramhall, Department Head	84	Tenth St.
Anna W. Dennett	55	Eighteenth St.
Katherine Humphrey	156	Tenth St.
Elizabeth Regan	282	Concord St.
Modwena Rowlandson	136	Parkview Ave.
Harriet Sturtevant	34	Nesmith St.
Ruth Unton	63	Mt. Vernon St.
Anna M. O'Day, Department Head	599	Central St.
Margaret McGurn	110	So. Walker St.
Orina B. Mongrain	1056	Bridge St.
Nellie Rourke	33	Marion St.
Helen Rouse	201	Summer St.
Elzina Secord	11	Bond St.
Rose Ward	635	Broadway
Agnes R. Burns	427	Lakeview Ave.
Agnes M. Moon	78	Mt. Washington St.
Katherine Brosnan	178	Perry St.
Mary N. Devine	231	School St.
Mary H. Mehan	40	Sixth St.
Helen F. O'Rourke (Temporary)	154	Shaw St.

SALARY SCHEDULE

In effect from January 1, 1919.

High School

Head Master	\$3,300
Sub-Master	2,600
Men Teachers	\$1,080 to 1,870
(First year \$1080; second year, \$1210; third year, \$1340; fourth year, \$1470; fifth year, \$1600; sixth year, \$1730; seventh year, \$1870; department head, \$100 in excess of schedule salary.)	
Women Teachers	\$780 to \$1380
(First year, \$780; second year, \$880; third year, \$980; fourth year, \$1080; fifth year, \$1180; sixth year, \$1280; seventh year, \$1380.)	

Elementary Schools

Masters (with yearly increase of \$100)	\$1320 to \$2420
Teachers	600 to 1080
(First year, \$600; second year, \$680; third year, \$760; fourth year, \$840; fifth year, \$920; sixth year, \$1000; seventh year, \$1080.)	

Principals of Primary Schools

\$50 in addition to regular grade salary.

Kindergartens

Principals	\$840
Assistants	\$600 to \$780
(First year, \$600; second year, \$660; third year, \$720; fourth year, \$780.)	

Temporary Teachers

Men, per day	\$3.00
Women, per day	3.00
Kindergartens, per day	2.00

Special Teachers

Drawing	\$1080 to \$1150
Music	1150 to 1610
Sewing	840 to 1140

TEACHERS' CERTIFICATES

(Granted Since January 1, 1918)

First Grade

John J. Savage, Harvard, 1915.	Boston College, 1909	Lowell, Mass.
Morton A. Sturtevant, Tufts College, 1899		Lowell, Mass.

Second Grade

Helen E. M. Choate, Boston University, 1918	Lowell, Mass.
Frances W. Dillon, Trinity College, 1918	Lowell, Mass.

Third Grade

Mary F. Concannon	Mary G. Dudley
Hazel A. Gardner	Ellen T. Muldoon
Alice F. Morrill	Margery E. McMaster
Gertrude Weinbeck	Celia B. Wood
Alice F. Seeton	

Fourth Grade

Mildred H. Crockett, Lesley Kindergarten, '18	Manchester, N. H.
Anna M. Ford, Miss Neil's Normal Training, '18	Lowell, Mass.
Henrietta Livingstone, Wheelock Kindergarten, '17	Roxbury, Mass.
Gladys T. Parsons, Leslie Kindergarten, '18	Lowell, Mass.

Authorized Text Books

For

High and Elementary Schools

Adopted by the School Committee of
Lowell, Massachusetts, June, 1913

HIGH SCHOOL

ENGLISH

Adopted

Rhetoric	Brooks & Hubbard	American Book Co.
Enlarged Practice Book	Hitchcock	Henry Holt & Co.
The Odyssey	Church	The Macmillan Co.
Buehler	Gray	American Book Co.
Tales from Shakespeare	Lamb	Ginn & Co.
Last of the Mohicans	Cooper	D. C. Heath & Co.
House of Seven Gables	Hawthorne	Houghton, Mifflin Co.
Twice Told Tales	Hawthorne	Houghton, Mifflin Co.
Iliad	Pope	Sibley & Ducker
Iliad	Bryant	Houghton, Mifflin Co.
Silas Marner	Eliot	Ginn & Co.
Julius Caesar	Shakespeare	D. C. Heath & Co.
Merchant of Venice	Shakespeare	Leach, Shewell & Sanborn
Macbeth	Shakespeare	Ginn & Co.
Lady of the Lake	Scott	American Book Co.
Ivanhoe	Scott	American Book Co.
Life of Johnson	Macaulay	Ginn & Co.
Sir Roger De Coverley	Addison & Steele	American Book Co.
L'Allegro and Il Penseroso	Milton	Longmans, Green and Ginn & Co.
Speech on Conciliation with America	Burke	Houghton, Mifflin Co.
Idylls of the King	Tennyson	Ginn & Co.
Vision of Sir Launfal	Lowell	Houghton, Mifflin Co.
Ancient Mariner	Coleridge	The Macmillan Co.
Chaucer to Arnold	George	The Macmillan Co.
Essays of Elia	Lamb	Houghton, Mifflin Co.
Tales of a Wayside Inn	Longfellow	Houghton, Mifflin Co.
Grandmother's Story	Holmes	Houghton, Mifflin Co.

Supplementary

Rhetoric	Shackford-Judson	Sanborn & Co.
Handbook of Composition	Woolley	D. C. Heath & Co.
Exercises in English	Strang	D. C. Heath & Co.
Students' Hist. of English Literature	Simonds	Houghton, Mifflin Co.
Introduction to English Literature	Pancoast	Henry Holt & Co.
Self-Cultivation in English	Palmer	Houghton, Mifflin Co.
Life of Goldsmith	Irving	Ginn & Co.
Tales of a Traveler	Irving	Longmans, Green & Co.
Palamon and Arcite	Dryden	Leach, Shewell & Sanborn
Sohrab and Rustum	Arnold	Henry Holt & Co.
Prologue to the Canterbury Tales	Chaucer	Houghton, Mifflin Co.
Essays on Clive and Hastings	Macaulay	Ginn & Co.

Washington's Farewell Address	Foster	Houghton, Mifflin Co.
Autobiography of Benj. Franklin		American Book Co.
Selected Essays	Emerson	American Book Co.
She Stoops to Conquer	Goldsmith	Houghton, Mifflin Co.
Twelfth Night	Shakespeare	Houghton, Mifflin Co.
King Lear	Shakespeare	D. C. Heath & Co.
Coriolanus	Shakespeare	Ginn & Co.
Henry Fifth	Shakespeare	Houghton, Mifflin Co.
Midsummer Night's Dream	Shakespeare	D. C. Heath & Co.
New Practice Book	Hitchcock	Henry Holt & Co.
High School English	Brubacher & Snyder	Chas. E. Merrill Co.
Business English	Davis & Lingham	Ginn & Co.
Rhetoric	Scott & Denny	Allyn & Bacon
Selections from Lincoln	Beave	Chas. E. Merrill Co.
Life of Johnson	Boswell	D. C. Heath & Co.
Pilgrim's Progress	Bunyan	Ginn & Co.
Birds & Bees	Burroughs	American Book Co.
Tale of Two Cities	Dickens	Houghton, Mifflin & Co.
American Poems	Gaston	D. C. Heath & Co.
Vicar of Wakefield	Goldsmith	Chas. E. Merrill Co.
Sketch Book	Irving	American Book Co.
Selected Ballads and Lyrics	Lodge	Allyn & Bacon
Leaflets	Lowell	Houghton, Mifflin & Co.
Old Testament Narratives	Nettleton	Houghton, Mifflin & Co.
Odyssey	Palmer	Henry Holt & Co.
Poems and Tales	Poe	Houghton, Mifflin & Co.
Marmion	Scott	Houghton, Mifflin & Co.
Kenilworth	Scott	American Book Co.
Woodstock	Scott	A. L. Burt
Guy Mannering	Scott	Houghton, Mifflin & Co.
As You Like It	Shakespeare	Ginn & Co.
Othello	Shakespeare	Houghton, Mifflin & Co.
Tempest	Shakespeare	American Book Co.
Treasure Island	Stevenson	Houghton, Mifflin & Co.
Princess	Tennyson	D. C. Heath & Co.
Essay on Burns	Carlyle	B. H. Sanborn & Co.
History of the Plague	Defoe	B. H. Sanborn & Co.
Paradise Lost	Milton	Longmans, Green & Co.
Golden Treasury	Palgrave	B. H. Sanborn & Co.
Life of Nelson	Southey	Ginn & Co.
Forum of Democracy	Watkins	Longmans, Green & Co.
Short Stories	Moulton	Allyn & Bacon
Short Stories	Hart & Perry	MacMillan & Co.
Flight of a Tartar Tribe	DeQuincey	Houghton, Mifflin & Co.
		B. H. Sanborn & Co.

FRENCH

Adopted

French Dictionary		D. C. Heath & Co.
French Grammar	Fraser & Squair	D. C. Heath & Co.
French Reader	Super	D. C. Heath & Co.
French Composition	Grandgent	D. C. Heath & Co.
French Syntax and Composition	Bouvet	D. C. Heath & Co.
Contes et Legendes	Guerber	American Book Co.
Sight Reading	Rogers	American Book Co.

Supplementary		
La Chute	Hugo	D. C. Heath & Co.
French Lyrics	Bowen	D. C. Heath & Co.
Exercises for Composition	Grandgent & Kimball	D. C. Heath & Co.
Scenes de la Revolution Francaise	Lamartine	American Book Co.
Fables	La Fontaine	American Book Co.
Douze Contes Nouveaux	Fontaine	American Book Co.
French Grammar	Worman	American Book Co.
La Tache du Petit Pierre	Mairet	American Book Co.
Selected Stories	Daudet	American Book Co.
Mademoiselle de la Seigliere	Sandeau	American Book Co.
Readings from French History	Super	Allyn & Bacon
French Composition	Blouet	Schoenhof
Grammaire Francaise	Larive et Fleury	Schoenhof
French Reader	Kuhns	Henry Holt & Co.
Le Dix-Septieme Siecle	Duval & Williams	Henry Holt & Co.
Simple French	Francois & Giroux	Henry Holt & Co.
La Grammaire	Labiche	Ginn & Co.
Intermediate French	Jacques	Ginn & Co.
Colomba	Merimee	Ginn & Co.
Le Voyage de Monsieur Perrichon	Labiche et Martin	Ginn & Co.
French Grammar	Complete Course	D. C. Heath & Co.
	Shorter Course	
Le Tour de la France		
par deux Enfants	Bruno	American Book Co.
Contes et Legendes, II	Guerber	American Book Co.
Commercial French Reader		Pitman
Drames et Comedies		American Book Co.
Le Premier Livre	Meras	American Book Co.
La Belle France	Monvert	Allyn & Bacon
Les Oberle	Bazin	Henry Holt & Co.
Historical French Reader		American Book Co.
French Newspaper Reader		American Book Co.
La Poudre aux Yeux	Labiche & Martin	American Book Co.
Contes Choisis	Bazin	D. C. Heath & Co.
La France qui travaille		D. C. Heath & Co.

GERMAN

Adopted

German Dictionary	Heath	D. C. Heath & Co.
Prose Composition	Harris	D. C. Heath & Co.
German Lessons	Harris	D. C. Heath & Co.
German Composition	Wesselhoeft	D. C. Heath & Co.
Wilhelm Tell	Schiller	D. C. Heath & Co.
Immensee	Storm	D. C. Heath & Co.

Supplementary

Words of Frequent Occurrence	Bierwirth	Henry Holt & Co.
Zerbrochener Krug	Zschokke	D. C. Heath & Co.
Composition	Fasnacht	The Macmillan Co.
Der Neffe als Onkel	Schiller	D. C. Heath & Co.
L'Arrabbiata	Heyse	American Book Co.
Zwischen Himmel und Erde	Ludwig	D. C. Heath & Co.
Das Edle Blut	Wildenbruch	Henry Holt & Co.

Der Schwiegersohn	Baumbach	Henry Holt & Co.
Der Stumme Ratsherr	Riehl	D. C. Heath & Co.
Composition	Pope	Henry Holt & Co.
Das Spielmannskind	Riehl	D. C. Heath & Co.

MATHEMATICS

Adopted

Plane Geometry	Wentworth & Smith	Ginn & Co.
Secondary Algebra	Wells	D. C. Heath & Co.
Essentials of Algebra	Wells	D. C. Heath & Co.
Elementary Algebra	Wentworth	Ginn & Co.
Trigonometry	Wentworth	Ginn & Co.
Elementary Algebra	Wells	
Plane Geometry	Wentworth & Smith	Ginn & Co.
Solid Geometry	Wentworth & Smith	Ginn & Co.
Plane Trigonometry	Wentworth	Ginn & Co.

Supplementary

Plane Geometry	Schultz & Sevenoak	The Macmillan Co.
McCurdy Exercises	McCurdy	D. C. Heath & Co.
Essentials of Plane Geometry	Wells	D. C. Heath & Co.
Essentials of Solid Geometry	Wells	D. C. Heath & Co.
First Course in Algebra	Wells	D. C. Heath & Co.
Exercises in Algebra	McCurdy	
Supplementary		
Review of Algebra	Rivenburg	
Algebra Exercises	Robbins	
Plane Geometry (Review)	MacGibbon	Sibley
Exercises in Alg. & Geom.	Hale	Heath

GREEK

Adopted

First Greek Book	White	Ginn & Co.
Xenophon's Anabasis	Goodwin & White	Ginn & Co.
Greek Grammar	Goodwin	Ginn & Co.
Greek-English Lexicon	Liddell & Scott	American Book Co.
Odyssey, Books I—VI	Perrin & Seymour	Ginn & Co.
Greek Prose Composition	Pearson	American Book Co.

Supplementary

Xenophon's Hellenica, I-IV	Manatt	Ginn & Co.
Iliad, Books I-VI	Seymour	Ginn & Co.
Herodotus, Vol. II	Dietsch	Teubner Edition, Leipsic, Germany

LATIN

Adopted

Latin Grammar	Allen & Greenough	Ginn & Co.
Cicero	Allen & Greenough	Ginn & Co.
Virgil	Allen & Kittredge	Ginn & Co.
Latin Prose Composition	Daniell-Brown	B. H. Sanborn & Co.
New Method for Caesar	Potter	B. H. Sanborn & Co.

Supplementary

Cicero Texts		American Book Co.
Virgil Texts		American Book Co.
Caesar Texts		American Book Co.
Sallust Texts		American Book Co.
First Book in Latin (Adopted)	Inglis & Prettyman	The Macmillan Co.
Caesar	Allen & Greenough	Ginn & Co.
Ovid	Allen & Greenough	Ginn & Co.
Nepos	Barss	MacMillan Co.
Latin Composition	Baker & Inglis	American Book Co.
A Year in Latin	W. A. Montgomery	Row, Peterson & Co.

COMMERCIAL

Adopted

Modern Illustrative Bookkeeping	Williams & Rogers	American Book Co.
Seventy Lessons in Spelling	Williams & Rogers	American Book Co.
Modern Business Penmanship	Mills	American Book Co.
Commercial Law	Gano	American Book Co.
Commercial Arithmetic	Moore	American Book Co.
Mental Arithmetic	Thurston	American Book Co.
Mental Arithmetic	Thompson	American Book Co.
Commercial Geography	Adams	D. Appleton Co.
Gregg Shorthand		Gregg Publishing Co.
Rational Typewriting		Gregg Publishing Co.
French Commercial Reader		Isaac Pitman Sons

Supplementary

Com. and Industrial Geography	Keller & Bishop	Ginn & Co.
Words		Gregg Pub. Co.
Zaner Method Manual		Zaner & Bloser Co.
Speed Studies		Gregg Pub. Co.
Graded Readings in Gregg Shorthand		Gregg Pub. Co.
Progressive Exercises		Gregg Pub. Co.
Practical Drills in Shorthand Penmanship		Gregg Pub. Co.
Advanced Practice in Gregg Shorthand		Gregg Pub. Co.

SPANISH

Worman's First Spanish Book		American Book Co.
Worman's Second Spanish Book		American Book Co.
Elementary Spanish Grammar	Espinosa & Allen	American Book Co.
Lecturas Faciles	Wilkins	Silver, Burdett & Company
Poco a Poco	Hall	World Book Co.
Spanish Tales for Beginners	Hills	Henry Holt Co.
Cuentos Modernos	Johnson	American Book Co.
Spanish Dictionary	Appleton	Appleton Pub. Co.

HISTORY

Adopted

History of the United States	Fiske	Houghton, Mifflin Co.
Brief History of the United States	McMaster	American Book Co.
Short History of Ancient Times	Myers	Ginn & Co.
History of the Ancient World	Botsford	The MacMillan Co.
Roman History	Morey	American Book Co.
Leading Facts of English History	Montgomery	Ginn & Co.
Ireland's Story	Johnston & Spencer	Houghton, Mifflin Co.

	Supplementary	
American History	Muzzey	Ginn & Co.
History of the United States	Adams & Trent	Allyn & Bacon
The Ancient World	West	Allyn & Bacon
A History of Greek Art	Tarbell	The Macmillan Co.
Greek Literature	Jebb	American Book Co.
A Short History of England	Andrews	Allyn & Bacon
History of the American Nation	McLaughlin	Appleton
Readings in History of the Nation	McLaughlin	Appleton
Short History of the U. S.	Bassett	Macmillan Co.
Gov't of N. E. States	Butler	Scribner
Manual of the Constitution	Andrew	American Book Co.
Civil Government	Martin	American Book Co.
New Civics	Ashley	Macmillan Co.
A Short History of England	Andrews	Allyn & Bacon
Ancient History	Webster	D. C. Heath & Co.
Supplementary		
Greek Leaders	Hopkinson	Houghton, Mifflin Co.

CHEMISTRY, PHYSICS AND OTHER SCIENCES

	Adopted	
Descriptive Chemistry	Newell	D. C. Heath & Co.
Qualitative Analysis	Irish	American Book Co.
A Text Book of Physics	Hall & Bergen	Henry Holt & Co.
First Principles of Physics	Carhart & Chute	Allyn & Bacon
Field, Forest & Garden Botany	Gray	American Book Co.
Outlines of Botany	Leavitt	American Book Co.
Plant Studies	Coulter	D. Appleton & Co.
Plant Study	Meier	Ginn & Co.
Practical Physiology	Blaisdell	Ginn & Co.
Human Body	Martin	Henry Holt & Co.
Lessons in Astronomy	Young	Ginn & Co.
Text Book of Geology	Brigham	D. Appleton & Co.
	Supplementary	
Applied Physics	Hawkins	Longmans, Green & Co.
Advanced Physiology and Hygiene	Conn & Budington	Silver Burdett & Co.
General Chemistry	Newell	D. C. Heath & Co.
Practical Physics	Black & Davis	Macmillan Co.

BOOKS FOR ELEMENTARY SCHOOLS

Adopted June, 1913

Algebra	
Wentworth's First Steps	Ginn & Co.

Arithmetics	
Morey Elementary, Part I	Scribner's Sons
Morey Elementary, Part II	Scribner's Sons
Morey Advanced	Scribner's Sons
Werner Mental	American Book Co.

Dictionaries

Worcester Primary	J. B. Lippincott Co.
Worcester Comprehensive	J. B. Lippincott Co.

Geographies

Frye's First Steps in Geography	Ginn & Co.
Frye's Leading Facts of Geography, Part I	Ginn & Co.
Frye's Leading Facts of Geography, Part II	Ginn & Co.
Frye's Grammar School Geography	Ginn & Co.
Tarr & McMurry Geography, Book I	The Macmillan Co.
Tarr & McMurry Geography, Book II	The Macmillan Co.
Tarr & McMurry Geography, Book I, Part I	The Macmillan Co.
Tarr & McMurry Geography, Book I, Part II	The Macmillan Co.
Tarr & McMurry Geography, Book II, Part I	The Macmillan Co.
Tarr & McMurry Geography, Book II, Part II	The Macmillan Co.

Geographical Readers

Carpenter's Africa	American Book Co.
Carpenter's Asia	American Book Co.
Carpenter's Australia	American Book Co.
Carpenter's Europe	American Book Co.
Carpenter's North America	American Book Co.
Carpenter's South America	American Book Co.
Winslow's The Earth and Its People	D. C. Heath & Co.
Winslow's The United States	D. C. Heath & Co.
Winslow's Our American Neighbors	D. C. Heath & Co.
Winslow's Europe	D. C. Heath & Co.
Winslow's Distant Countries	D. C. Heath & Co.
McDonald & Dalrymple's Little People Everywhere:	
Betty in Canada	Little, Brown & Co.
Manuel in Mexico	Little, Brown & Co.
Ume San in Japan	Little, Brown & Co.
Rafael in Italy	Little, Brown & Co.
Kathleen in Ireland	Little, Brown & Co.
Fritz in Germany	Little, Brown & Co.
Gerda in Sweden	Little, Brown & Co.
Boris in Russia	Little, Brown & Co.
Donald in Scotland	Little, Brown & Co.
Marta in Holland	Little, Brown & Co.
Hassan in Egypt	Little, Brown & Co.
Josefa in Spain	Little, Brown & Co.

Histories

Gordy's American	Scribner's Sons
Montgomery's Leading Facts	Ginn & Co.
Scudder's American	American Book Co.
Dickson's American	The Macmillan Co.
Tappan's Our Country's Story	Houghton, Mifflin Co.
Tappan's England's Story	Houghton, Mifflin Co.
Davis's History of the U.S. for Youngest Readers	Ed. Pub. Co.
Wilson's Reader	The Macmillan Co.

Historical Readers

Guerber's Stories of the English	American Book Co.
Guerber's Stories of the Greeks	American Book Co.

AUTHORIZED TEXT BOOKS

Language and Grammar

Mother Tongue, Books I and II	Ginn & Co.
Metcalf & Rafter Series, Books I and II	American Book Co.
Aldine Language	Newson & Co.

Music Readers

Harmonic Series	American Book Co.
Johnson's Songs of the Nation (Sets of 50)	Silver, Burdett & Co.

Spellers

Chancellor's Graded City	The Macmillan Co.
Reed's Word Lessons	C. E. Merrill Co.

Physiology

Gulick Series, Good Health	Ginn & Co.
Gulick Series, Emergencies	Ginn & Co.
Gulick Series, Town and City	Ginn & Co.
Gulick Series, Body at Work	Ginn & Co.
Gulick Series, Control of the Body and Mind	Ginn & Co.

Readers

The Aldine Series	Newson & Co.
Baker & Carpenter	The Macmillan Co.
Cyr	Ginn & Co.
Gordon	D. C. Heath & Co.
Jones	Ginn & Co.
Art Literature	Atkinson, Mentzer Co.
Howe	Scribner's Sons
Wheeler	W. H. Wheeler & Co.
Williams Choice Literature	American Book Co.
The Hiawatha Primer	Houghton, Mifflin Co.
The Wide Awake Series	Little, Brown & Co.
Child Life Series	The Macmillan Co.
Heath	D. C. Heath & Co.
The Riverside Readers	Houghton, Mifflin Co.
Free & Treadwell's Reading Literature, I and II	Row, Peterson & Co.
The Haliburton Readers, I and II	D. C. Heath & Co.
Progressive Road to Reading, I and II	Silver, Burdett & Co.
(1) Blaisdell's Boy Blue and His Friends	Little, Brown & Co.
(2) Blaisdell's Polly and Dolly	Little, Brown & Co.
(3) Blaisdell's Cherry Tree Children	Little, Brown & Co.
(4) Bingham's Merry Animal Tales	Little, Brown & Co.
(5) Bryce's Fables from Afar	Newson & Co.
(6) Bryce's That's Why Stories	Newson & Co.
(7) Bryce's Short Stories for Little Folks	Newson & Co.
(8) Smith's Four Footed Friends	

The eight books numbered above are to be furnished for first, second and third grades in sets of not more than twenty-five.

General Literature

Sewell's Black Beauty	Ed. Pub. Co.
Defoe's Robinson Crusoe	American Book Co.
Masterpieces of American Literature	Houghton, Mifflin Co.
Hawthorne's Wonder Book	Houghton, Mifflin Co.

Scudder's Fables and Folk StoriesHoughton, Mifflin Co.
 Hale's A Man Without a Country (Sets of 50)
 Brook's Story of the Old Bay State (Set of 4), Grade 9 .American Book Co.
 Coe's Founders of Our Country (Set of 4), Grade 5
 Lucia's Story of American Discoverers for Little Americans (Set of 4), Grade 4American Book Co.
 Stevenson's Children's Classics (Set of 10):
 Book I for Grade 3Houghton, Mifflin Co.
 Book II for Grade 4Houghton, Mifflin Co.
 Book III for Grades 5 and 6Houghton, Mifflin Co.

Desk Books for Teachers

Hart's Source Readers in American HistoryThe Macmillan Co.
 Page's American PoetsHoughton, Mifflin Co.
 Hazard's Three Years With the PoetsHoughton, Mifflin Co.
 Johnston's Ireland's StoryHoughton, Mifflin Co.
 Ashley's Government and CitizenThe Macmillan Co.

Writing

Gilman SystemDutton & Co.

TEXT BOOKS ADDED TO THE LIST

1914

Standard Reference Work.
 Funk and Wagnalls Dictionaries.

1915

O'Shea & Kellog Health Series, published by Macmillan Co.
 Business English by Davis & Lingham, published by Ginn & Co.
 Office Training for Stenographers—Gregg.
 Standard Dictionary of Facts.

1916

Williams & Rogers, Beldings Correspondence—American Book Co.
 Young & Fields Readers—Ginn & Co.
 Golden Rule Series—Macmillan Co.
 Story Hour Readers—American Book Co.
 See & Say Phonics—Iroquois Publishing Co.
 Brigham & McFarlane, Essentials of Geography—American Book Co.

1917

Oral and Written English by Potter, Jeschke and Gillett, published by Ginn & Co.
 To take the place of Mother Tongue.
 Emerson and Bender. Grammar for optional use in ninth grades.
 Spellers—Mastery of words, by Sarah Louise Arnold, published by Iroquois Publishing Co.
 Spellers—Graded School Speller, by Spaulding & Miller, published by Ginn & Co.
 These spellers to replace, as spellers are needed, the Reed and the Chancellor spellers which are now in use.
 Readers: Everyday Classics by Baker and Thorndike, published by Macmillan Co.
 The Merrill Readers by Dyer and Brady, published by Charles E. Merrill Company.
 The Elson Readers, by Elson Keck, published by Scott, Foreman & Co.
 The Lippincott Readers, by Homer P. Lewis, published by J. B. Lippincott Company.
 The Twins Series, by Lucy Fitch Perkins, published by Houghton, Mifflin Company.
 Bunny Rabbits Diary by Blaisdell, published by Little Brown & Co.
 Pretty Polly Flinders by Blaisdell, published by Little, Brown & Co.
 Old Mother West Wind by Burgess, published by Little, Brown & Co.

For the Desk:—

Arlo by Cobb, published by the Riverside Press.

For the Children's Hour, by Bailey, published by Milton, Bradley Co.

Keep Well Stories by Jones, published by J. P. Lippincott Co.

Wonderland Stories by Lewis, published by J. P. Lippincott Co.

The Travels of Birds by Chapman, published by D. Appleton & Co.

1918

Hart's School History of the United States.

Powell's The Spirit of Democracy.

Watkin's The Forum of Democracy.

Brubacher & Snyder—High School English, Book I.

**SUMMARY OF THE ANNUAL RETURNS OF THE PUBLIC SCHOOLS OF THE CITY OF LOWELL FOR THE YEAR
ENDING JUNE 30, 1918, WITH NUMBER OF PUPILS BELONGING DECEMBER, 1918.**

SCHOOL	LOCATION	Whole No. Enrolled			No. of Pupils Belonging Dec. 1918			Whole No. Pupils on Registers Since Sept. 1, 1917			Average No. Belonging to School			Average Daily Attendance			No. ent'd not rec'd from any other public school	No. rec'd from other public schools of lower grade	No. rec'd from other public schools of same grade	No. sent to other public schools of higher grade	No. sent to other public schools of same grade	Per cent. of attendance	No. of class-rooms in regular use	No. of seats or sittings in these rooms	
		Males	Females	Total	Males	Females	Total	Males	Females	Total	Males	Females	Total	Males	Females	Total									
High	Kirk and Anne St.	731	904	1635	607	787	1394	739	912	1651	637	786	1423	615	753	1368	106	461	29	29	11	96	50	1723	
Grammar																									
Bartlett	Wannalancit St.	229	259	488	218	240	458	249	272	521	203	241	444	189	221	410	31	36	40	54	18	92	12	623	
Butler	Gorham St.	341	346	687	299	296	595	372	353	725	312	313	625	292	290	582	32	142	30	57	22	93	15	730	
Colburn	Lawrence St.	168	151	319	173	157	330	176	163	339	152	143	295	143	131	274	17	68	20	15	30	93	8	367	
Edson	Highland and South St. ...	207	211	418	166	177	343	228	228	456	183	185	368	170	171	341	18	89	40	17	22	92	5	513	
Green	Merrimack St.	301	220	521	196	173	369	321	233	554	207	162	369	193	145	338	168	49	68	13	30	91	12	602	
Greenhalge	Ennell St.	211	234	445	149	177	326	233	256	489	181	199	380	169	184	353	54	77	32	31	20	93	10	480	
Lincoln	Chelmsford St.	304	310	614	291	286	577	312	318	630	276	291	567	252	270	522	27	105	16	61	15	92	13	660	
Moody	Rogers and High St.	221	217	438	200	177	377	230	227	457	193	193	386	176	177	353	18	92	19	47	30	92	10	490	
Morey	Pine and Wilder St.	371	396	767	364	381	745	401	414	815	354	366	720	329	338	667	51	166	61	72	26	93	16	762	
Pawtucket	Mammoth Road	264	272	536	222	221	443	234	243	477	218	217	435	204	201	405	63	46	23	37	24	94	11	564	
Riverside	Woburn St.	90	90	180	76	85	161	90	90	180	79	77	156	76	70	146	13	31	7	15	5	94	4	182	
Varnum	Myrtle and Beech St.	352	317	669	291	314	605	381	346	726	320	291	611	306	269	575	91	109	36	52	22	95	15	776	
Washington	Avery and Lang St.....	181	180	361	224	206	430	189	190	379	172	176	348	159	164	323	38	24	25	25	7	93	9	394	
	Total	3240	3203	6443	2869	2890	5759	3415	3333	6748	2850	2854	5704	2658	2631	5289	621	1034	407	486	271	92	7	145	7143

SUMMARY OF THE ANNUAL RETURNS OF THE PUBLIC SCHOOLS—(Continued)

Primary	23	19	42	20	14	31	24	19	43	21	18	39	20	17	37	7	2	13	7 94 0	1	45	
Agawam St.	71	66	137	62	44	106	77	73	150	66	58	124	61	52	113	34	0	13	41	17 91 0	3	168
Ames St.	125	133	258	113	120	233	127	136	263	103	114	217	92	103	195	84	4	26	73	27 89 0	5	249
Bartlett	65	48	113	39	29	68	66	50	116	50	36	86	45	33	78	41	2	4	28	6 91 0	2	108
Billings St.	117	91	208	109	79	188	124	100	224	97	73	170	81	61	142	155	0	16	45	14 84 0	4	200
Cabot St.	45	55	100	44	48	92	47	55	102	42	50	92	36	45	81	30	0	3	27	13 88 0	3	168
Carter St.	50	45	95	48	43	91	58	53	111	41	39	80	37	33	70	46	9	12	16	8 87 0	2	102
Central St.	50	45	95	48	43	91	58	53	111	41	39	80	37	33	70	46	9	12	16	8 87 0	2	102
Charles St.	82	99	181	63	82	145	82	91	173	60	55	145	59	78	137	54	1	21	25	14 93 0	4	192
Charles St.	124	94	218	77	72	149	125	98	223	104	76	180	91	67	158	69	39	5	43	22 88 0	5	251
Colburn	63	75	138	59	55	114	66	86	152	52	61	113	45	55	100	54	15	10	26	7 87 0	3	133
Cross St.	73	78	151	58	71	129	76	81	157	65	66	131	57	57	114	34	21	16	44	18 90 0	3	183
Dover St.	87	89	176	83	74	157	98	92	190	82	69	144	73	56	129	82	0	15	31	15 91 0	4	220
Eliot	57	67	121	59	48	107	62	73	135	47	57	104	43	51	94	21	18	11	0	10 91 0	3	142
Franklin	70	66	136	78	57	135	78	72	150	65	68	133	55	58	113	24	28	14	41	5 86 0	3	144
Grand St.	81	80	161	75	63	138	119	102	221	83	66	149	73	58	131	87	11	37	28	11 88 0	4	199
Greenhalge	18	17	35	9	10	19	18	17	35	10	12	22	8	10	18	32	0	3	5	4 82 0	1	30
Kirk St.	72	76	148	59	63	122	89	80	169	65	67	132	61	67	128	52	17	21	26	22 92 0	3	160
Lakeview Ave.	136	122	258	107	113	220	141	134	275	118	109	227	109	94	203	55	24	25	91	23 88 0	5	280
Laura Lee	66	54	120	51	58	109	68	58	126	64	49	113	56	48	104	2	0	6	32	4 92 0	3	152
London St.	59	56	115	51	42	93	59	56	115	48	42	90	46	40	86	60	0	17	28	6 94 0	2	103
Lyon St.	71	83	154	63	82	145	79	86	165	63	69	132	58	62	120	64	19	4	84	5 91 0	4	176
New Moody	48	41	89	40	39	79	48	41	89	38	36	74	35	33	68	3	0	6	36	8 92 0	2	96
Pawtucket	89	70	159	60	65	125	90	74	164	74	62	136	65	54	119	31	26	6	44	10 87 0	3	168
Pine St.	99	79	178	95	77	172	102	86	188	89	76	165	78	68	146	50	24	32	17 87 0	4	200	
Pond and High St.	62	60	122	51	55	106	66	66	132	44	52	96	40	47	87	45	5	14	21	17 90 6	2	105
Powell St.	49	61	110	51	46	97	52	61	113	44	47	91	41	42	83	58	2	9	31	8 92 0	2	112
Riverside	42	37	79	33	41	74	46	45	91	37	32	69	32	30	62	74	1	16	0	12 90 5	2	110
Sycamore St.	97	94	191	84	73	157	114	103	217	87	81	171	78	76	154	52	25	28	62	15 90 0	4	211
Tenth St.	81	72	153	62	59	121	84	74	158	72	62	134	66	56	122	33	6	0	13 89 0	3	144	
Washington	55	45	100	49	38	87	58	47	105	48	38	86	44	34	78	2	18	5	20	5 92 0	2	105
Weed St.	123	112	235	101	87	188	133	120	253	94	88	182	88	83	171	69	17	25	44	42 94 0	4	220
West Sixth St.	73	84	157	68	66	131	86	89	175	60	66	126	54	60	114	65	0	10	18	8 92 0	3	159
Worthen St.																						
Total	2373	2268	4641	2021	1913	3934	2562	2418	4980	2033	1920	3953	1827	1728	3555	1572	339	427	1008	413 90	98	4996

SUMMARY OF THE ANNUAL RETURNS OF THE PUBLIC SCHOOLS—(Continued)

Mixed	Lexington Ave.	25	19	44	24	21	45	26	21	47	22	14	36	21	12	33	20	0	3	0	9	9	1	5	1	41
	Middlesex Village	73	51	124	59	46	105	80	60	140	61	43	104	53	37	90	30	0	16	9	18	88	4	3	152	
	Total	98	70	168	83	67	150	106	81	187	83	57	140	74	49	123	50	0	19	9	27	87	8	4	193	
Kindergarten	In Agawam Primary	10	8	18	7	7	14	10	8	18	9	7	16	7	5	12	18	0	0	13	1	79	1	25		
	In Cross St. Primary	27	25	52	15	18	33	27	26	53	20	13	33	16	11	27	52	0	1	34	1	81	6	40		
	In Central St. Primary	18	12	30	9	9	18	19	14	33	10	7	17	8	6	14	30	0	3	18	1	82	1	25		
	In Colburn Primary	34	24	58	16	10	26	34	25	59	20	12	32	15	8	23	58	0	1	18	0	72	1	37		
	In Dover St. Primary	17	24	41	18	13	31	17	24	41	8	18	26	5	15	20	41	0	0	22	3	77	1	34		
	In Franklin Primary	27	23	50	21	20	44	28	26	54	17	13	30	15	9	24	52	0	2	22	0	80	1	34		
	In Howard St. Annex	33	30	63	18	12	30	33	30	63	20	20	40	15	14	29	61	0	2	41	0	72	1	49		
	In Lakeview Ave. Primary	29	25	54	12	19	31	29	25	54	17	13	30	13	11	24	51	0	0	31	0	80	1	40		
	In Laura Lee Primary	27	30	57	18	21	39	27	30	57	19	21	40	16	18	34	46	0	0	33	2	84	1	40		
	In Moody Primary	20	17	37	11	18	29	20	17	37	12	11	23	10	9	19	37	0	0	18	0	80	1	35		
	In Pawtucket Primary	17	26	43	11	13	24	17	26	43	10	14	24	8	11	19	28	0	0	18	0	79	1	30		
	In Pine St. Primary	13	21	37	15	17	32	14	24	38	10	17	27	8	12	20	37	0	1	24	0	74	1	39		
	In Varnum School	36	47	83	26	29	55	36	47	83	23	29	52	19	24	43	83	0	0	46	1	83	2	62		
	In Weed St. Primary	22	24	46	16	13	29	20	24	44	16	16	32	12	13	25	44	1	1	18	1	78	1	52		
	Total	330	339	669	216	219	435	331	346	677	211	211	422	167	166	333	638	1	11	356	10	78	15	542		
	Vocational	Broadway and Common St.	107	70	177	76	35	111	113	75	188	73	51	124	65	46	111	25	85	15	0	1	89	5	17	
Summary		731	904	1635	607	787	1391	739	912	1651	637	786	1423	615	753	1368	106	461	29	29	11	96	50	1723		
Summary	Grammar Schools	3240	3203	6143	2869	2890	5759	3415	3333	6748	2850	2851	5704	2658	2631	5289	621	1031	407	486	271	92	7	145		
	Primary Schools	2373	2268	4611	2021	1913	3934	2562	2418	4980	2033	1920	3953	1827	1728	3555	1572	339	427	1008	413	90	98			
	Mixed Schools	98	70	168	83	67	150	106	81	187	83	57	140	74	49	123	50	0	19	9	27	87	8			
	Kindergarten Schools	330	339	669	216	219	435	331	346	677	211	211	422	167	166	333	638	85	11	356	10	78	15			
Total	6772	6784	13556	5796	5876	11672	7158	7090	14243	5814	5828	11642	5341	5327	10668	2987	1919	893	1888	732	312	11	97			

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CITY OF LOWELL

MASSACHUSETTS

EIGHTY-THIRD ANNUAL REPORT

OF THE

CITY AUDITOR



FOR THE FINANCIAL YEAR

1918

Municipal Council

1918

MAYOR

PERRY D. THOMPSON, Public Safety

ALDERMAN

JAMES E. DONNELLY, Finance

ALDERMAN

CHARLES J. MORSE, Streets and Highways

ALDERMAN

FRANCIS A. WARNOCK, Property and Licenses

ALDERMAN

GEORGE H. BROWN, Fire and Water

CITY OF LOWELL

Lowell is situated at the confluence of the Merrimack and Concord Rivers. Was settled in 1653, called Chelmsford Grant. First Town Meeting in 1654.

Was originally a part of Chelmsford.

Incorporated as a Town in 1826.

Incorporated as a City in 1836.

Part of Tewksbury annexed in 1834, 1874, 1898, 1906.

Part of Dracut annexed in 1851, 1874, 1879.

Part of Chelmsford annexed in 1826, 1874.

Population, 125,000.

Has 217.8 miles of streets, 144.8 accepted, 73 unaccepted.

Has 120 miles of sewers, costing \$6,766,961.53.

Has an area of 14.1 square miles.

Assessed valuation \$98,774,850.00, and 28,202 assessed polls.

Tax rate \$23.80 per \$1000.00, per cent. of valuation 100.

Bonded indebtedness \$4,461,875.00, sinking funds \$1,597,655.31.

City Hall and Memorial Building costing \$450,000.

School Department—62 buildings costing \$2,700,000.00, 362 teachers.

Fire Department—14 buildings, 6 engines, 4 hook and ladder trucks, 3 autos, 10 auto combinations, 2 chemicals, 6 hose wagons, 156 alarm boxes, 133 miles wire, 155 officers and men.

Police Department—1 station, 2 auto patrols, 2 patrol wagons, 157 officers and men, 70 signal boxes.

Water Department—Date of construction, 1870 to 1873; high service, 1881; driven wells, 1893 to 1916.

Source of supply—Two hundred ten (210) driven wells in the valley of River Meadow Brook, and four hundred seventy-nine (479) driven wells at Pawtucket Boulevard.

Mode of supply—Pumping to reservoir and pumping direct. Filtered through coke and sand.

Daily capacity 14,000,000 gallons; 157.46 miles mains; 1457 fire hydrants; reservoir capacity 5 days' supply; consumes 5,442,967 daily.

Park Department—160.322 acres of parks and playgrounds valued at \$716,400.00.

Has five National Banks, two Trust Companies.

Has eight Savings Banks.

Has three Co-operative Banks.

Has 16½ miles waterways.

Develops about 30,000 h. p. daily by means of 6½ miles of canals which furnish power for manufacturing plants.

Has the largest Textile School.

Has more than 1000 manufacturing plants.

Auditor's Department

CITY OF LOWELL, MASSACHUSETTS

That the Auditor, with the exception of monthly bills approved by the Municipal Council, issue no draft to pay any bill without THREE signatures of the Municipal Council.

All bills or claims for work performed must be presented to the DEPARTMENT ORDERING SAME; those for supplies furnished and contracts must be presented to the PURCHASING AGENT.

All bills or claims must be received by the City on or before the FIRST day of the month.

All department receipts must be sent to the Purchasing Agent on or before the THIRD day of the month.

All bills or claims shall be presented to the Commissioner of the Department contracting the same on or before the THIRD day of each month.

All bills after approval by the Commissioner, shall be listed and sent to the Auditor's Department not later than the EIGHTH day, for final approval by the Municipal Council.

ALL BILLS OR OTHER CLAIMS, BEFORE THEY ARE FINALLY CERTIFIED BY THE AUDITOR OR PAID SHALL BE APPROVED BY THE MUNICIPAL COUNCIL.

Bills will be paid on the FIFTEENTH day of each month.

OFFICES IN THE CITY HALL ARE OPEN FROM 9 A. M. UNTIL 4 P. M. EXCEPT SATURDAY.

Auditing Department

CITY OF LOWELL, MASSACHUSETTS

To the Honorable the Mayor and Municipal Council,

GENTLEMEN :—

In accordance with provisions of the city Charter, of the City of Lowell, I have the honor to submit the following report of the business transacted in the office of the city auditor for the fiscal year of 1918.

Complying with the acts of 1914, section 322, I have made the annual audit of all the trust funds of the city.

Information of general interest to the city is also included.

The accounts of all the departments of the city were audited by Mr. Everett E. Tarbox, certified municipal accountant. His report is also included.

Respectfully submitted,

CHARLES D. PAIGE,

Auditor.

**ASSETS AND LIABILITIES OF THE CITY OF LOWELL,
DECEMBER 31, 1918**

Assets

Ordinary City Debt Sinking Fund	\$ 687,260.75
Water Debt Sinking Fund	910,394.56
Outstanding Assessments:	
Taxes	773,972.40
Sidewalk	1,963.33
Sewers	9,361.71
Street Watering	10,562.22
Moth	1,315.30
Department Bills	25,355.94
Cash Balance December 31	240,542.55
Total Available Assets	<hr/> \$ 2,660,728.76
Valuation of Water Works, both Real Estate and Personal Property	\$ 2,029,376.67
Valuation of City Buildings, Land, Personal Property	6,202,822.33
Total Unavailable Assets	<hr/> \$ 8,232,199.00
Total Available Assets	\$ 2,660,728.76
Total Unavailable Assets	8,232,199.00
Grand Total	<hr/> \$10,892,927.76

Liabilities

Ordinary City Debt	\$ 3,311,746.30
Water Works Debt	1,432,750.00
Total Gross City Debt	<hr/> 4,744,496.30
Temporary Loan	1,000,000.00
Balance Unexpended	95,203.49
Total Liabilities	<hr/> 5,839,699.79
Surplus of Assets	5,053,227.97
Grand Total	<hr/> \$10,892,927.76

TAX LEVY 1918

The following figures pertain to the polls, valuation, tax levy, etc., at the closing of accounts December 31st, 1918.

Polls	At Commitment 27639	Supplementary 563	Total 28202	at \$ 2.00	Property Tax	Tax
Personal Valuation	\$24,598,450.00	\$153,975.00	\$24,752,425.00	at \$23.80	\$ 589,107.72	\$ 56,404.00
Real Estate Valuation	74,176,400.00	10,300.00	74,186,700.00	" "	1,765,643.46	
Total Val. and Tax.	\$98,774,850.00	\$164,275.00	\$98,939,125.00	" "	\$2,354,751.18	\$2,354,751.18
					Total City Tax	\$2,411,155.18
					Non-Resident Bank Tax	11,890.48
					Grand Total Tax Levy	\$2,423,045.66

Levy:—

City Appropriation	\$2,017,600.00
Lowell Textile School	10,000.00
State Tax	211,860.00
State Highway Tax	2,631.31
State Grade Crossings Tax	4,480.00
County Tax	104,993.10
Total up to Overlay	\$2,351,564.41
Overlay	54,555.02
Supplementary Tax in December	\$2,406,119.43
	5,035.75
Total City Tax for year 1918	\$2,411,155.18
Non-Resident Bank Tax	11,890.48
Grand Total Tax Levy	\$2,423,045.66
Street Sprinkling Tax	25,612.22
Moth Tax	2,768.70
Bay State Street Railway Tax (Excise)	11,776.69
Total Amount for which Warrants were issued	\$2,463,203.27
	25,612.22
	2,768.70
	11,776.69
	\$2,463,203.27

NET ABATEMENTS MADE IN THE YEAR 1918

Year	Polls	Personal	Real	Net Totals
1915	\$9,884.00	\$2,866.76	\$ 202.16	\$12,952.92
1916	18.00	20.14	503.15	541.64
1917	1,532.00	850.59	1,350.18	3,732.77
1918		1,182.25	5,114.02	6,296.27

STREET SPRINKLING ABATEMENTS

Year	Totals	Before Payment	After Payment	REASSESSED Before Payment	After Payment	Net Totals	Reassessed After Payment
1914	\$17.24	\$17.24				\$17.24	
1917	11.15	3.06	\$8.09		\$1.88	1.18	
1918	12.95	11.00	1.95	\$11.00	1.95		\$1.95

MOTH TAX ABATEMENTS

Year	Totals	Before Payment	After Payment	Reassessments	Net Abatements
1914	\$.15	\$.15			\$.15
1916	.25	.25			.25
1918	11.60	11.60			11.60

LIMIT OF MUNICIPAL DEBT FOR 1919 IS \$2,360,124.45

BALANCE SHEET

DECEMBER 31, 1918

Dr.	REVENUE	Cr.
\$ 181,283.18	.....Cash	
1,069.64	.....Taxes 1915.....	
24,086.66	..... " 1916.....	
205,157.84	..... " 1917.....	
543,658.26	..... " 1918.....	
1.25	.....Moth 1915.....	
	..... " 1916.....	\$.20
363.55	..... " 1917.....	
950.50	..... " 1918.....	
14.55	.....Sprinkling 1915.....	
3.46	..... " 1916.....	
3,156.17	..... " 1917.....	
7,388.04	..... " 1918.....	
	.....Overlay 1916.....	16,807.25
	..... " 1917.....	15,051.34
	..... " 1918.....	28,294.50
5,704.40	.....Tax Titles	
1,963.33	.....Sidewalk Assessment	
9,361.71	.....Sewer Assessment	
25,355.94	.....Department Accts. Rec.	
3,979.15	.....Cemetery Accts. Rec.	
14,277.86	.....Water Accts. Rec.	
	.....Tax Revenue Loans	1,000,000.00
	.....Revenue Appropriations	11,013.33
	.....Cemetery Revenue	3,979.15
	.....Water Revenue	14,277.86
73,941.25	.....Other Revenue	
	.....Premiums	968.07
	.....Sidewalk Revenue	1,963.33
	.....Sewer Revenue	9,361.71
<u>\$1,101,716.64</u>		<u>\$1,101,716.64</u>

NON-REVENUE

\$ 59,259.37	.....Cash	
	.....Appropriations	\$ 59,259.37
	.....Loans Authorized	
<u>\$ 59,259.37</u>		<u>\$ 59,259.37</u>

INDEBTEDNESS

December 31, 1918

Sinking Funds Cash and Securities		Funded Debt	
City Hall Fund	\$ 415,644.03	City Hall Loan payable	
High School Fund	141,685.71	1920	\$ 450,000.00
New Schoolhouse Fund	129,931.01	High School Loan payable	
Water Construction Fd.	910,394.56	1921	150,000.00
Net Bonded Debt	2,864,219.69	New Schoolhouse Loan payable	
		1926	200,000.00
		Water Construction Loan payable	
		1920 ..	1,000,000.00
		General City 3½ Loan	
		4	24,000.00
		4¼	1,795,375.00
		4½	103,400.00
		4¾	647,900.00
		4 7/10	50,000.00
		Nesmith Fund 1870	15,000.00
		Nesmith Fund 1970	25,000.00
		City paying 6 per cent.	1,000.00
		Carney Medal Fund	200.00
	\$4,461,875.00		\$4,461,875.00

TRUST FUNDS

Cash and Securities	\$ 259,284.50	Carney Medal Fund	\$ 200.00
Cash Used by City in 1870, and now paying 6 per cent.	26,200.00	Hapgood Wright Fund	5,691.58
		John Davis Library Fd.	97,496.21
		Jonathan Tyler Fund	10,000.00
		Thos. Nesmith Fund	25,000.00
		Thos. Nesmith Fund	1,000.00
		Cemetery Perpetual Care	139,427.96
		Unpaid Debt and Interest	6,668.75
	\$ 285,484.50		\$ 285,484.50

Property

Dr.		Cr.
\$2,029,376.67	Water Works	
2,094,890.00	Schools	
2,751,247.42	General Departments	
	City of Lowell (Balancing Account)	\$6,875,514.09
\$6,875,514.09		\$6,875,514.09

CITY OF LOWELL, DEC. 31, 1918

THE MUNICIPAL DEBT

Gross Debt

Total ordinary city debt	\$3,076,125.00
Total Water Works debt	1,385,750.00
Total Tax Revenue loans	1,000,000.00
Gross Debt December 31, 1918	\$5,461,875.00

Net City Debt

Total ordinary debt, January 1, 1918	\$3,311,746.30
Sinking Fund	687,260.75
Total	\$2,624,485.55
Payments	412,621.30
Total	\$2,211,864.25
Loans	177,000.00
Net debt	\$2,388,864.25

Net Water Debt

Total ordinary Water debt, January 1, 1918	\$1,432,750.00
Sinking fund	910,394.56
Payments	\$ 522,355.44
Total	\$ 475,355.44

Total Net City and Water Debt Dec. 31, 1918

City	\$2,388,864.25
Water	475,355.44
Total	\$2,864,219.69

LIMIT OF INDEBTEDNESS

DECEMBER 31, 1918

City, January 1, 1918	\$3,311,746.30
Water	1,432,750.00
Revenue tax loan	750,000.00
Gross debt January 1, 1918	\$5,494,496.30

Total gross debt, January 1, 1918	\$5,494,496.30
Deduct by legislation :	
Water	\$1,432,750.00
Special legislation	1,139,500.00
Revenue tax loan	750,000.00
City debt as relates to limit of indebtedness	\$2,172,246.30

Limit of municipal debt for 1918	\$2,308,855.46
City debt as relates to limit	2,172,246.30

Distance from Debt Limit January 1, 1918	\$ 136,609.16
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Borrowing Limit December 31	\$ 372,230.46
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Loans 1918

Sewer Construction	18 years	\$ 36,000.00
Paving	10 years	50,000.00
New Sidewalks	2 years	5,000.00
Macadam	5 years	25,000.00
Sewer Construction	25 years	25,000.00
German War	1 year	15,000.00
Health	5 years	15,000.00
Sewer Construction	6 years	6,000.00
Total		\$ 177,000.00

CLASSIFICATION OF
RECEIPTS AND PAYMENTS
BY SCHEDULES
Year of 1918

RECEIPTS

SOURCES OF RECEIPTS	Revenue for Expenses	Revenue for Outlays	Total
General Revenue			
1 Taxes:			
Current Year—			
1 Property	\$1,843,387.13		
2 Poll	29,704.00		
Previous Years—			
3 Property	499,398.18		
4 Poll	18,308.00		
From the State—			
5 Corporation and Business	164,014.13		
6 Street Railway (exclusive of Boston Elevated excise tax)	18,523.60		
7a Bank	2,623.42		
b Income	104,800.67		
Tax Title Redemptions	53.48		
Total from Taxes	\$2,680,812.61		\$2,680,812.61
2 Licenses and Permits:			
Licenses—			
8 Liquor	\$ 144,836.00		
9 All Other	10,784.50		
Permits—			
10 Marriage	1,177.00		
11 All Other			
Total from Licenses and Per- mits	\$ 156,797.50		\$ 156,797.56
3 Fines and Forfeits:			
12 Court	\$ 10,241.18		
13 Department Penalties			
14 Contract Violations			
Total from Fines and Forfeits	\$ 10,241.18		\$ 10,241.18
Total forward			\$2,847,851.29

RECEIPTS

SOURCES OF RECEIPTS	Revenue for Expenses	Revenue for Outlays	Total
Total forward			\$2,847,851.29
4 Grants and Gifts:			
Grants from Other Civil Divisions—			
15 From State, for Education			
a Support of Public Schools			
b Aid to High Schools			
c Aid to Industrial Schools			
d High School Tuition			
e Union Superintendency			
16 From State, for Armories			
17 From State, for Highway Purposes			
18 From State for Other Purposes			
a Inspector of Animals			
b Protection Against Forest Fires			
19 From County (Dog Licenses), for Schools or Libraries	\$ 3,828.88		
Gifts from Individuals—			
20 For Expenses			
21 For Outlays			
Total from Grants and Gifts	\$ 3,828.88		\$ 3,828.88
5 All Other General Revenue:			
22			
23			
Total from All Other General Revenue			
Total forward			\$2,851,680.17

RECEIPTS

SOURCES OF RECEIPTS	Revenue for Expenses	Revenue for Outlays	Total
Total forward			\$2,851,680.17
Commercial Revenue			
6 Special Assessments:			
24 Street Sprinkling	\$ 25,935.88		
25 Moth Extermination	2,675.59		
26 Sewers	13,845.74		
27 Sidewalks and Curbing	6,187.84		
28 Other Purposes			
 Total from Special Assessments	 \$ 48,645.05		 \$ 48,645.05
7 Privileges.			
29 Public Service			
30 Minor			
 Total from Privileges			
Total forward			\$2,900,325.22

RECEIPTS

SOURCES OF RECEIPTS	Revenue for Expenses	Offsets to Outlays	Total
Total forward			\$2,900,325.22
8 Departmental:			
8a General Government			
Legislative—			
31 Aldermen and Council;			
Executive—			
32 Mayor; Commission; Select-			
men			
Financial—			
33 Auditor, Accountant, and			
Auditing			
34 Treasurer	\$ 2,228.81		
35 Collector			
36 Assessors			
37 License Commissioners	169.39		
38 Other Finance Officers and			
Accounts			
Other General Departments			
39 Law			
40 City or Town Clerk	1,081.55		
General Government forward ..	3,479.75		
Total forward			\$2,900,325.22

PAYMENTS

OBJECTS OF PAYMENTS	Expenses	Outlays	Total
1 Departmental:			
1a General Government			
Legislative—			
1 Aldermen and Council;			
Moderator			
a Salaries and Wages	\$ 10,000.00		
b Other Expenses	4,309.91		
Executive—			
2 Mayor; Commission; Select-			
men			
a Salaries and Wages	5,056.34		
b Other Expenses	593.26		
Financial—			
3 Auditor, Accountant, and			
Auditing	995.00		
a Salaries and Wages	5,250.00		
b Other Expenses	1,148.68		
4 Treasurer and Collector			
a Salaries and Wages	12,632.84		
b Other Expenses	4,345.81		
6 Assessors			
a Salaries and Wages	15,324.50		
b Other Expenses	1,492.40		
7 License Commissioners			
a Salaries and Wages	4,364.04		
b Other Expenses	265.70		
Other General Departments			
9 Law			
a Salaries and Wages	4,100.00		
b Other Expenses	886.58		
10 City or Town Clerk			
a Salaries and Wages	7,464.49		
b Other Expenses	1,915.06		
General Government forward ..	\$ 80,144.61		

RECEIPTS

SOURCES OF RECEIPTS	Revenue for Expenses	Offsets to Outlays	Total
Total forward			\$2,900,325.22
General Government forward ..	\$ 3,479.75		
41 City Messenger			
42 Public Works			
43 Engineering			
44 Supt. of Buildings			
45 Election and Registration			
46 Other General Depts.			
Municipal Buildings—			
7 City or Town Hall			
a City Hall Boilers		\$ 310.00	
Total for General Government	\$ 3,479.75	\$ 310.00	\$ 3,789.75
8b Protection of Persons and Property			
Police Department			
48 Services of Officers			
49 Sale of Materials			
50 Miscellaneous	\$ 75.72		
Rental Court by County	2,950.00		
Protection of Persons and Property forward	\$ 3,025.72		
Total forward			\$2,904,114.97

PAYMENTS

OBJECTS OF PAYMENTS	Expenses	Outlays	Total
General Government forward ..	\$ 80,144.61		
11 City Messenger			
a Salaries and Wages	1,400.00		
b Other Expenses	105.69		
13 Engineering			
a Salaries and Wages	7,484.88		
b Other Expenses	244.65		
14 Supt. of Buildings			
a Salaries and Wages	2,000.00		
14 Election and Registration			
a Salaries and Wages	15,334.59		
b Other Expenses	5,067.40		
16 Other General Depts.			
Purchasing Agent—			
a Salaries and Wages	6,316.42		
b Other Expenses	1,474.46		
c Reg. Labor	534.78		
Municipal Buildings—			
17 City or Town Hall			
a Salaries and Wages	12,956.64		
b Other Expenses (including heating Memorial Bldg.)	10,560.53	\$ 15,144.83	
Total for General Government	\$ 144,624.65	\$ 15,144.83	\$ 158,769.48
1b Protection of Persons and Property			
Police Department—			
18 Salaries and Wages	\$ 201,150.84		
19 Horses and Care of Same ...	510.01		
20 Equipment and Repairs	989.64		
22 Maintenance of Buildings and Grounds			
24 Other Expenses	5,286.38		
Insurance	6,079.29		
Police Wires			
Waterways—Protection	526.45		
Protection of Persons and Property forward	\$ 214,542.61		
Total forward			\$ 158,769.48

RECEIPTS

SOURCES OF RECEIPTS	Revenue for Expenses	Offsets to Outlays	Total
Total forward			\$2,904,114.97
Protection of Persons and Property forward	\$ 3,025.72		
Fire Department—			
51 Sale of Materials			
52 Miscellaneous	81.61		
Militia—			
53 Armories			
54 Rifle Ranges			
Inspection—			
55 Inspection of Buildings	\$ 403.21		
56 Inspection of Wires	432.47		
57 Sealing of Weights and Measures	1,194.91		
Forestry—			
58 Insect Pest Extermination	75.05		
59 Planting and Trimming Trees			
60 Forest Fires			
Other Protection of Persons and Property—			
61 Bounties			
62			
63			
Total from Protection of Persons and Property	\$ 5,212.97		\$ 5,212.97
Total forward			\$2,909,327.94

PAYMENTS

OBJECTS OF PAYMENTS	Expenses	Outlays	Total
Total forward			\$ 158,769.48
Protection of Persons and Property forward	\$ 214,542.61		
Fire Department—			
25 Salaries and Wages	195,344.00		
26 Horses and Care of Same	11,352.95		
27 Equipment and Repairs	5,106.98	\$ 6,000.00	
28 Hydrant Service			
29 Fuel and Light	7,351.64		
30 Maintenance of Buildings and Grounds	1,521.11		
31 New Buildings			
32 Other Expenses	3,253.00		
Fire Alarm Boxes—keyless doors	2,395.74		
Automobile Ladder Truck Chassis			
Autos, Fittings and Supplies	3,157.22		
Militia—			
33 Armories			
34 Rifle Ranges	1,290.16		
Inspection—			
35 Inspection of Buildings	73,168.67		
36 Inspection Wires	2,857.40		
37 Sealing of Weights and Measures	5,593.71		
Forestry—			
38 Insect Pest Extermination	7,502.27		
39 Planting and Trim. Trees ..			
40 Forest Fires			
Other Protection of Persons and Property—			
41 Bounties			
42 Fish Wardens	150.00		
43 Pound Keeper	4.58		
Total for Protection of Per- sons and Property	\$ 534,592.04	\$ 6,000.00	\$ 540,592.04
Total forward			\$ 699,361.52

RECEIPTS

SOURCES OF RECEIPTS	Revenue for Expenses	Offsets to Outlays	Total
Total forward			\$2,909,327.94
8c Health and Sanitation:			
Health—			
64 Quarantine and Contagious Diseases	\$ 1,771.67		
65 Tuberculosis			
66 Miscellaneous	1,077.52		
67 Inspection			
Sanitation—			
68 Sewers and Sewage Disposal	34.73		
69 Sewer Construction			
70 Refuse and Garbage Disposal	3,822.24		
71 Street Cleaning			
Sewer Connections	380.66		
Other Health and Sanitation—			
72 Comfort Station	607.42		
73			
Total from Health and Sanitation	\$ 7,694.24		\$ 7,694.24
Total forward			\$2,917,022.18

PAYMENTS

OBJECTS OF PAYMENTS	Expenses	Outlays	Total
Total forward			\$ 699,361.52
1c Health and Sanitation:			
Health—			
45 General Administration	\$ 16,657.55		
46 Quarantine and Contagious Disease Hospitals		\$ 92,426.71	
47 Tuberculosis	11,016.09		
48 Vital Statistics	1,020.19		
49 Other Expenses	9,970.44		
Isolation Hospital			
50 Inspection			
a Inspection of School Chil- dren	800.00		
b Inspection of Animals	500.00		
c Inspection of Meat and Provisions			
d Inspection of Milk and Vinegar	3,008.68		
Inspection of Smoke	315.91		
Sanitation—			
51 Sewer Maintenance and Operation	15,964.57		
53 Sewer Construction		69,291.67	
54 Refuse and Garbage Disposal	94,391.04		
Other Health and Sanitation			
56 Sanitaries and Public Con- venience Stations	6,298.13		
Total for Health and Sanitation	\$ 159,942.60	\$ 161,718.38	\$ 321,660.98
Total forward			\$1,021,022.50

RECEIPTS

SOURCES OF RECEIPTS	Revenue for Expenses	Offsets to Outlays	Total
Total forward			\$2,917.022.18
8d Highways:			
74 General	\$ 593.26		
75 Construction			
76 Sidewalks and Curbing (Granolithic)			
77 Snow and Ice Removal			
78 Sprinkling			
80 Miscellaneous			
Construction—Macadamizing			
Construction—Paving	8.68	1,763.92	
Total from Highways	\$ 601.94	\$ 1,763.92	\$ 2,365.86
8e Charities:			
81 Almshouse or Town Farm			
a Sale of Produce and Stock			
b Board			
c Miscellaneous	\$ 2,382.48		
82 Reimbursements for Relief Given			
a From Individuals	20.50		
b From Other Cities and Towns	1,055.53		
c From the State	4,256.29		
d From St. John's Hospital ..	70.50		
83 Reimbursements for Mothers' Aid			
a From Individuals			
b From Other Cities and Towns			
c From the State			
84 Municipal General Hospitals			
85 Miscellaneous			
Total from Charities	\$ 7,785.30		\$ 7,785.30
Total forward			\$2,927,173.34

PAYMENTS

OBJECTS OF PAYMENTS	Expenses	Outlays	Total
Total forward			\$1,021,022.50
1d Highways:			
60 General Administration	\$ 202,753.30		
61 General Highway Exp.			
62 Construction		95,757.07	
63 Sidewalks and Curbing			
64 Snow and Ice Removal			
65 Sprinkling	23,552.16		
a Water			
b Other			
66 Lighting	119,879.47		
67 Other Expenses		50.00	
c State Highway			
Total for Highways	\$ 346,184.93	\$ 95,807.07	\$ 441,992.00
1e Charities:			
68 General Administration	\$ 5,951.87		
69 Almshouse or Town Farm	104,401.29		
70 Outside Relief by City or Town	9,752.04		
71 Relief Given by Other Cities and Towns	1,549.14		
72 Mothers' Aid			
a Relief Given by City or Town	45,389.06		
b Relief Given by Other Cities and Towns	924.10		
74 Other Expenses	18,457.05		
Total for Charities	\$ 186,424.55		\$ 186,424.55
Total forward			\$1,649,439.05

RECEIPTS

SOURCES OF RECEIPTS	Revenue for Expenses	Offsets to Outlays	Total
Total forward			\$2,927.173.34
8f Soldiers' Benefits:			
86 State Aid	\$ 52,608.72		
87 Military Aid	975.00		
88 Soldiers' Burials			
89 Soldiers' Relief	689.75		
Total from Soldiers' Benefits	\$ 54,273.47		\$ 54,273.47
8g Schools:			
90 Tuition and Transportation of State Wards	\$ 1,926.00		
91 Other Tuition	8,393.75		
92 Sale of Text Books and Supplies	11.14		
93 Miscellaneous			
Vocational School	19,890.10		
School House Rents	1,005.00		
School Houses	18.30		
Newsboys' Badges			
Smith-Hughes Fund—Voca- tional School	1,573.19		
Sale School Buildings		\$ 380.00	
Total from Schools	\$ 32,817.48	\$ 380.00	\$ 33,197.48
8h Libraries:			
94 Fines, Rentals and Sales	\$ 429.69		
95 Miscellaneous			
Total from Libraries	\$ 429.69		\$ 429.69
Total forward			\$3,015,073.98

PAYMENTS

OBJECTS OF PAYMENTS	Expenses	Outlays	Total
Total forward			\$1,649,439.05
1f Soldiers' Benefits:			
75 General Administration	\$ 2,541.94		
76 State Aid	11,000.00		
77 Military Aid	1,766.00		
78 Soldiers' Burials			
79 Soldiers' Relief	14,643.87		
German War	57,410.54		
Soldiers' Exemption	33.08		
Soldiers' Graves	239.70		
Total for Soldiers' Benefits	\$ 87,635.13		\$ 87,635.13
1g Schools:			
80 General Expenses			
a Administrative Salaries	\$ 3,500.00		
b Other General Salaries	427,277.13		
c Other General Expenses	28,477.55		
d Retirement Fund			
82 Text Books and Supplies	20,736.13		
84 Transportation	1,438.20		
85 Support of Truants	1,648.25		
87 Fuel and Light	45,944.64		
88 District Police	12,999.60		
89 New Buildings		141,776.52	
90 Furniture and Furnishings	904.79		
92 Other Expenses	37,004.59		
Textile School	20,000.00		
Total for Schools	\$ 599,930.88	\$ 141,776.52	\$ 741,707.40
1h Libraries:			
93 Salaries and Wages	\$ 14,450.63		
94 Books, Periodicals, etc.	3,400.15		
95 Binding	1,159.44		
96 Light	638.51		
97 Buildings			
98 Other Expenses	1,839.13	434.61	
Total for Libraries	\$ 21,487.86	\$ 434.61	\$ 21,922.47
Total forward			\$2,500,704.05

PAYMENTS

OBJECTS OF PAYMENTS	Expenses	Outlays	Total
Total forward			\$2,500,704.05
1i Recreation:			
99 General Administration			
a Salaries and Wages			
100 Parks and Gardens			
a Salaries and Wages	\$ 9,963.67		
b Improvements and Addi- tions		\$ 648.73	
d Other Expenses	7,372.63		
101 Playgrounds and Gymnasia ..			
a Salaries and Wages	2,794.35		
b Improvements and Addi- tions		20,012.50	
c Other Expenses	2,606.12		
103 Celebrations and Entertain- ments			
a Fourth of July	600.00		
b Labor Day	1,199.98		
c Band Concerts	1,429.76		
d All Other	468.48		
Soldiers' and Sailors' Cele- bration			
Board Trade, Agricultural Ex.			
Park Purposes			
Fairgrounds			
Total for Recreation	\$ 26,434.99	\$ 20,661.23	\$ 47,096.22
Total forward			\$2,547,800.27

RECEIPTS

SOURCES OF RECEIPTS	Revenue for Expenses	Offsets to Outlays	Total
Total forward			\$3,016.537.48
8j Pensions:			
100			
8k Unclassified:			
101 Receipts not Recorded under Previous Classifications ..			
a Buildings			
b Insurance (on school)	\$ 2,403.16		
Total from Unclassified	\$ 2,403.16		\$ 2,403.16
Total forward			\$3,018.940.64

PAYMENTS

OBJECTS OF PAYMENTS	Expenses	Outlays	Total
Total forward			\$2,547,800.27
1j Pensions:			
104 Retirement made from:			
a Street Department	\$ 1,658.64		
b Police Department	6,308.92		
c Fire Department	7,548.10		
d B'dgs Department	577.72		
e Water Works Dept.	365.00		
Total for Pensions	\$ 16,458.38		\$ 16,458.38
1k Unclassified:			
105 Damages to Persons and Personal Property	\$ 4,036.11		
106 Memorial Day	1,606.00		
107 City and Town Clocks	50.00		
110 Payments not Recorded un- der Previous Classifica- tions			
a Printing City or Town Re- ports and Binding	2,138.77		
b Veteran Firemen's Asso- ciation			
c Property Damages			
d Revision Ordinances			
Court Expenses	6,580.72		
Workingmen's Compensa- tion	4,761.24		
1916 Payrolls Allowed			
Tax Titles—bought by City	2,978.99		
Total for Unclassified	\$ 22,151.83		\$ 22,151.83
Total forward			\$2,586,410.48

RECEIPTS

SOURCES OF RECEIPTS	Revenue for Expenses	Offsets to Outlays	Total
Total forward			\$3,018,940.64
9 Public Service Enterprises: ...			
104 Water			
a Income from Sale of Water	\$ 295,784.49		
b Miscellaneous			
105 All Other			
a Markets			
b Public Scales	80.60		
Total from Public Service Enterprises	\$ 295,865.09		\$ 295,865.09
10 Cemeteries:			
106 Sale of Lots and Graves	\$ 6,478.50		
107 Care of Lots and Graves	5,177.98		
108 Care of Endowed Lots (In- terest on Funds)			
109 Miscellaneous			
Opening Graves	3,950.50		
Recording and Miscellaneous	122.25		
Total from Cemeteries'	\$ 15,729.23		\$ 15,729.23
11 Administration of Trust Funds:			
110			
111			
112			
Total forward			\$3,330,534.96

PAYMENTS

OBJECTS OF PAYMENTS	Expenses	Outlays	Total
Total forward			\$2,586,410.48
2 Public Service Enterprises:			
111 Electric—			
a Maintenance & Operation ..			
b Construction			
112 Gas—			
a Maintenance & Operation ..	\$ 237,148.26		
b Construction		\$ 3,393.80	
113 Water—			
a Maintenance & Operation ..			
c Construction			
Purchase of Land			
114 All Other—			
a Markets			
b Public Scales	1,008.00		
c Docks and Wharves			
d Ferries			
e Herring and Alewife Fisheries			
f Miscellaneous			
Total for Public Service Enterprises	\$ 238,156.26	\$ 3,393.80	\$ 241,550.06
3 Cemeteries:			
115 Maintenance	\$ 13,315.30		
116 Improvements and Additions			
Total for Cemeteries	\$ 13,315.30		\$ 13,315.30
4 Administration of Trust Funds:			
117			
118			
119			
Total forward			\$2,841,275.84

RECEIPTS

SOURCES OF RECEIPTS	Revenue for Expenses	Indebtedness	Total
Total forward			\$3,330,534.96
12 Interest:			
113 On Deposits	\$ 8,077.68		
114 On Deferred Taxes	28,699.04		
118 On Public Trust Funds			
a Charity			
b School			
c Library			
Total from Interest	\$ 36,776.72		\$ 36,776.72
13 Municipal Indebtedness:			
120 Loans in Anticipation of Revenue			
121 Other Temporary Loans		\$2,000,000.00	
122 Loans for General Purposes		177,000.00	
123 Trust Funds Used			
124 Loans for Public Service Enterprises			
127 Premiums		968.07	
128 Unpaid Warrants or Orders of Current Year			
Total from Municipal In- debtedness		\$2,177,968.07	\$2,177,968.07
Total forward			\$5,545,279.75

PAYMENTS

OBJECTS OF PAYMENTS	Expenses	Indebtedness	Total
Total forward			\$2,841,275.84
5 Interest:			
120 On Loans in Anticipation of Revenue			
121 On Other Temporary Loans	\$ 53,155.02		
122 On Loans for General Purposes	129,445.60		
123 On Trust Funds Used	2,168.00		
124 On Loans for Public Service Enterprises	57,150.00		
125 On Loans for Cemeteries			
Total for Interest	\$ 241,918.62		\$ 241,918.62
6 Municipal Indebtedness:			
129 Loans in Anticipation of Revenue		\$1,750,000.00	
132 Bonds and Notes from Revenue			
a General	\$ 412,621.30		
b Public Service Enterprises	47,000.00		
c Cemeteries			
Total for Municipal Indebtedness	\$ 459,621.30	\$1,750,000.00	\$2,209,621.30
Total forward			\$5,292,815.76

RECEIPTS

SOURCES OF RECEIPTS		Non- Revenue	Total
Total forward			\$5,545,279.75
14 Sinking Funds:			
From Commissioners to meet Loans for—			
129 General Purposes			
130 Public Service Enterprises			
131 Cemeteries			
15 Agency, Trust and Invest- ment Transactions:			
Trust—			
136 Perpetual Care Funds		\$ 9,225.00	
137 Other Permanent Public Trust Funds		400.00	
138 Income for Investment			
139 Private Trust Funds and Accounts			
John Tyler Trust Fund		3,440.35	
Total from Agency, Trust and Investment Transactions		\$ 13,065.35	\$ 13,065.35
Total forward			\$5,558,345.10

PAYMENTS

OBJECTS OF PAYMENTS	for Revenue	From Non- Revenue	Total
Total forward			\$5,292,815.76
7 Sinking Funds:			
To Commissioners for Debt Re- quirements—			
137 From Taxes, Earnings, etc. ..	\$ 30,500.00		
138 From Special Assessments			
139 From Sale of Real Estate, etc.			
Total for Sinking Funds	\$ 30,500.00		\$ 30,500.00
8 Agency, Trust and Investment Transactions:			
Agency—			
140 Taxes			
a State		\$ 211,860.00	
b Non-resident Bank		11,740.43	
c County		104,993.10	
141 Liquor Licenses Remitted to the State		36,209.00	
142 Abolition of Grade Crossings		4,480.00	
143 All Other		2,631.31	
Corporation Tax			
Trust—			
144 Perpetual Care Funds		9,225.00	
145 Other Permanent Public Trust Funds			
146 Income Invested			
147 Private Trust Funds and Accounts			
Total from Agency, Trust and Investment Transactions		\$ 381,138.84	\$ 381,138.84
Total forward			\$5,704,454.60

RECEIPTS

SOURCES OF RECEIPTS	Temporary Accounts and Cash Balances	Total
Total forward		\$5,558,345.10
16 Refunds:		
148 Accrued Interest	\$ 776.87	
149 All Other (Overdrafts)	7,361.31	
Total Refunds	\$ 8,138.18	8,138.18
17 Transfers:		
150 Departmental	\$ 53,331.66	
Total Transfers	\$ 53,331.66	53,331.66
18 Balances:		
151 General		
152 Sinking Fund		
153 Investment Fund		
154 Perpetual Care Fund		
155 Other Public Trust Fund		
156 Private Trust Funds and Accounts		
Total Cash on Hand Beginning of Year	\$ 389,792.57	\$ 389,792.57
Grand Total Receipts and Cash on Hand		\$6,009,607.51

PAYMENTS

OBJECTS OF PAYMENTS	Temporary Accounts and Cash Balances	Revenue
Total forward		\$5,704,454.60
9 Refunds:		
150 Taxes—Reassessed	\$ 11,278.70	
152 Special Assessments—Street Watering		
Total Refunds	\$ 11,278.70	11,278.70
10 Transfers:		
158 Departmental	\$ 53,331.66	
Total Transfers	\$ 53,331.66	53,331.66
11 Balances:		
162 Perpetual Care Fund		
163 Other Public Trust Fund		
164 Private Trust Funds and Accounts		
Total Cash on Hand End of Year	\$ 240,542.55	240,542.55
Grand Total Payments and Cash on Hand		\$6,009,607.51

Insurance

Schools	\$1,963.87
C. Hall	980.80
Health	474.00
Street	137.00
Buildings	650.88
Library	278.10
Charity	1,074.99
Police	349.00
Parks (con. Buildings)	115.15
Cemetery	55.50
Water Works	2,504.27
	<hr/> \$8,583.56

Transfers

Various Departmental Transfers to:

Police	\$ 910.60
Health Yard	782.52
Charity	660.46
Purchasing Agent	756.90
Engineering	6,654.82
Street, Other Expenses	1,500.00
Fire, Other Expenses	200.00
Water Works,	5,108.80
Buildings, Wages	1,179.44
Buildings, Other Expenses	11,789.44
Schools	23,025.49
Claims	763.25
	<hr/> \$ 53,331.66

These Municipal Transfers Deducted from Appropriations

Band Concerts to General Expenses	\$ 247.24
Camp Devens to General Expenses	1,000.00
Health Office to Health Yard	2,000.00
Insurance to General Expenses	600.00
Liquor Licenses to Workmen's Compensation	600.00
Paving and Widening Lawrence Street to Paving	1,444.44
Purchase Land (Water) to Addition to Plant No. 2	4,770.51
Street Sprinkling to Street Maintenance	3,446.49
	<hr/> \$ 14,108.68

Expenditures from Building Appropriation

School Houses	\$38,222.37
Fire Houses	4,737.47
Building Dept. Stable	258.15
Board of Health Stable	533.01
Board of Health Hospital	325.97
Comfort Station	855.21
Carpenter Shop (Repair and Maintenance)	630.99
City Hall	1,871.18
City Hospital	2,976.49
City Stables	827.98
Isolation Hospital	461.88
Lighting Station	3.46
Memorial Building	515.86
Police Station Stable	870.85
Rifle Range	632.66
Building Inspector	2,000.00
Building Deputy Inspector	1,673.02
Coffin Construction	817.13
Clerical Work	2,576.77
Elevator Inspector	636.75
Gas Piping Inspector	1,302.52
Janitors at Police Station	2,975.55
Janitor at Memorial Hall	1,027.00
Office Supplies	420.05
Pensions and Compensations	2,182.20
Stock on Hand	2,974.51
Tools	583.93
Transportation	7,418.10
Vacations	2,351.54
General Expenses	6,052.61
	<hr/>
	\$88,715.21

FINANCIAL STATEMENT

OF THE
CITY OF LOWELL, MASS.

BALANCES

APPROPRIATIONS

CASH RECEIPTS

TRANSFERS

PAYMENTS

FROM JANUARY 1, 1918 TO DECEMBER 31, 1918

REVENUE—APPROPRIATIONS, RECEIPTS AND PAYMENTS

1—Commissioner of Public Safety

No.	Revenue Accounts	Expenditure	Unexpended	Balance from 1918	Appropriated from Revenue	Transfers	Cash Receipts	Total Appropriation
1— 1	Mayor, Wages	\$ 5,056.34	\$ 443.66		\$ 5,500.00			\$ 5,500.00
	O. E.	593.26			593.26			593.26
1— 7	Law, Wages	4,100.00			4,100.00			4,100.00
	O. E.	886.58	40.63		900.00		\$ 27.21	927.21
1—14	Insurance	6,079.29			5,602.90		476.39	6,079.29
2— 1	Police, Wages	207,459.76			206,549.16	\$ 910.60		207,459.76
	O. E.	7,696.63			7,696.63			7,696.63
2— 8	Fish and Game Warden	150.00			150.00			150.00
2— 9	Pound Keeper	4.58	.42		5.00			5.00
2—11	Police, Wires		500.00		500.00			500.00
2—12	Waterways	526.45	73.55		600.00			600.00
3— 1	Health Office, Wages	16,657.55	842.45		17,500.00			17,500.00
	O. E.	20,986.53	4,517.47		25,500.00		4.00	25,504.00
3— 2	Health Yard, Wages	72,954.10			72,954.10			72,954.10
	O. E.	22,219.46			21,436.94	782.52		22,219.46
3— 3	Smoke Inspection	315.91	24.09		340.00			340.00
3— 4	School Inspection	800.00			800.00			800.00
3— 5	Animal Inspection	500.00	10.00		510.00			510.00
3— 6	Milk Inspection, Wages	2,792.41			2,792.41			2,792.41
	O. E.	216.27	517.73		734.00			734.00
5— 1	Charity, Wages	28,294.54			28,294.54			28,294.54
	O. E.	112,477.31			111,722.28	660.46	94.57	112,477.31
5— 2	Mothers with Dependent Children							
6— 1	Soldiers' Benefits, Office Wages	46,313.16			46,283.16		30.00	46,313.16
	O. E.	2,400.00			2,400.00			2,400.00
		141.94			124.57		17.37	141.94
6— 2	State Aid	11,000.00	18.00		11,000.00		18.00	11,018.00
6— 3	Military Aid	1,766.00	44.00		1,800.00		10.00	1,810.00
6— 4	Soldiers' Relief	14,643.87			14,594.87		49.00	14,643.87
6— 5	Soldiers' Graves	239.70	10.30		250.00			250.00
6— 6	German War	57,410.54		\$16,516.04	40,000.00		894.52	57,410.54
8— 5	Band Concerts	352.76	495.50	495.50	352.76			352.76
14— 2	Revision of Ordinances							495.50
13— 8	Soldiers' Exemption	33.08			33.08			33.08
		\$645,068.02	\$7,537.80	\$17,011.52	\$631,619.66	\$2,353.58	\$1,621.06	\$652,605.82

2—Commissioner of Finance

1—3 Auditor, Wages	\$ 5,250.00		\$ 5,250.00	\$ 5,250.00
O. E.	1,148.68	1.32	1,150.00	1,150.00
1—4 Treasurer, Wages	12,632.84	337.16	12,970.00	12,970.00
O. E.	4,345.81		4,345.81	4,345.81
1—5 Assessors, Wages	15,324.50		15,324.50	15,324.50
O. E.	1,492.40	7.60	1,500.00	1,500.00
1—8 City Clerk, Wages	8,398.39	61.61	8,460.00	8,460.00
O. E.	2,001.35		2,001.35	2,001.35
1—11 Election and Registration, Wages	15,334.59		15,334.59	15,334.59
O. E.	5,067.40		5,067.40	5,067.40
1—12 Purchasing Agent, Wages	6,316.42	583.58	6,900.00	6,900.00
O. E.	2,231.36		1,474.46	2,231.36
1—15 Registrar of Labor	534.78	.22	535.00	535.00
14—3 Auditing City Books	995.00	5.00	1,000.00	1,000.00
	\$ 81,073.52	\$996.49	\$81,313.11	\$82,070.01

3—Commissioner Streets and Highways

1—10 Engineering	\$ 14,384.35		\$ 14,384.35	\$ 14,384.35
3—8 Sewer Maintenance	15,964.57		16,000.00	16,000.00
4—1 Street Maintenance, Wages	170,712.33	35.43	171,000.00	171,000.00
O. E.	35,199.61	287.67	33,678.61	35,199.61
4—2 Street Sprinkling, Wages	2,053.51		2,053.51	2,053.51
O. E.	21,498.65	1.35	21,500.00	21,500.00
4—3 Street Lighting	119,879.47	120.53	120,000.00	120,000.00
	\$379,692.49	\$444.98	\$371,736.65	\$380,137.47

REVENUE—APPROPRIATIONS, RECEIPTS AND PAYMENTS—Continued

4—Commissioner Fire and Water

No.	Revenue Accounts	Expenditure	Unexpended	Balance from 1918	Appropriated from Revenue	Transfers	Cash Receipts	Total Appropriation
2-- 2	Fire, Wages	\$202,892.10			\$202,892.10			\$202,892.10
	O. E.	34,338.64	\$ 494.50	\$1,633.14	33,000.00	\$ 200.00		34,833.14
2--13	Fire, Triple Combination	6,000.00		6,000.00				6,000.00
10-- 1	Water Works*	319,752.06		1,941.75				302,835.04
10-- 2	Water Works Special		5,352.32			5,108.80	\$295,784.49	5,352.32
	†Water Works Interest and Debt	27,020.00						
		\$590,002.80	\$ 5,846.82	\$9,574.89	\$235,892.10	\$5,308.80	\$301,136.81	\$551,912.60

†To be paid in January, 1919, order of Municipal Council.

*Accounts receivable \$14,277.86.

5—Commissioner of Public Property and Licenses

1-- 6	License Commission, Wages	\$ 4,364.04	\$ 35.96		\$ 4,400.00			\$ 4,400.00
	O. E.	265.70	34.30		300.00			300.00
1-- 9	Messenger, Wages	1,400.00			1,400.00			1,400.00
	O. E.	105.69			105.69			105.69
1--13	City Hall, Wages	12,956.64			12,956.64			12,956.64
	O. E.	10,560.53			10,560.53			10,560.53
2-- 3	Rifle Range, Wages	912.50			912.50			912.50
	O. E.	377.66	9.84		387.50			387.50
2-- 4	Buildings, Wages	53,433.22	821.50		53,075.28	1,179.44		54,254.72
	O. E.	35,281.99			23,492.61	11,789.38		35,281.99
2-- 5	Wires, Wages	2,636.30			2,636.30			2,636.30
	O. E.	221.10			221.10			221.10
2-- 6	Sealer, Wages	4,836.57			4,836.57			4,836.57
	O. E.	757.14			757.14			757.00
2-- 7	Moths, Wages	5,644.29	105.71		5,750.00			5,750.00
	O. E.	1,857.98			1,857.98			1,857.98
2--10	Weigher, Wages	1,000.00			1,000.00			1,000.00
	O. E.	8.00	2.00		10.00			10.00
3-- 7	Comfort Station, Wages	5,020.00			5,020.00			5,020.00
	O. E.	1,278.13	1.87		1,280.00			1,280.00
2--14	District Police, Special Work	12,999.60	.40		13,000.00			13,000.00
2-- 1	New Boilers—City Hall	15,144.83	165.17		15,000.00		\$310.00	15,310.00
		\$171,061.91	\$1,176.75		\$158,959.84	\$12,968.82	\$310.00	\$172,238.66

6—Recreation

8— 1	Parks, Wages	\$ 9,963.67	\$ 1,036.33	\$272.00	\$11,000.00	\$11,000.00
	O. E.	7,372.63			5,637.13	7,372.63
8— 2	Parks, Specials	5,400.47	599.53		6,000.00	6,000.00
8—13	Cardinal O'Connell Parkway	648.73	1.27		650.00	650.00
		\$23,385.50	\$1,637.13	\$272.00	\$23,287.13	\$25,022.63

7—School Department

7— 1	Schools, Wages	\$430,777.13	\$10,822.87		\$441,600.00	\$441,600.00
	O. E.	121,607.73			98,582.24	121,607.73
7— 2	Vocational School, Wages	28,477.55	1,522.45		30,000.00	30,000.00
	O. E.	9,094.36			7,521.17	9,094.36
7— 3	Textile School	20,000.00			20,000.00	20,000.00
		\$609,956.77	\$12,345.32		\$597,703.41	\$622,302.09

8—Municipal Council

1— 2	Commissioners	\$10,000.00			\$10,000.00	\$10,000.00
	O. E.	622.55			622.55	622.55
8— 3	Fourth of July	600.00			600.00	600.00
8— 4	Labor Day	1,199.98	\$.02		1,200.00	1,200.00
8— 6	Memorial Day, G. A. R.	1,000.00			1,000.00	1,000.00
8— 7	S. W. V.	400.00			400.00	400.00
8— 8	S. of V.	150.00			150.00	150.00
8— 9	Veteran Fire Association	56.00	44.00		100.00	100.00
13— 4	Liquor Licenses	36,209.00	191.00		36,400.00	36,400.00
14— 1	Claims	13,900.14	267.17	\$251.84	13,915.47	14,167.31
14— 4	Workmen's Compensation Act ..	4,761.24			4,620.26	4,761.24
14— 5	General Expenses	5,352.31			4,593.06	5,352.31
14— 6	Execution of Court	10,824.59			10,824.59	10,824.59
		\$85,075.81	\$502.19	\$251.84	\$84,425.93	\$85,578.00

REVENUE—APPROPRIATIONS, RECEIPTS AND PAYMENTS—Continued

9—Library Trustees

No.	Revenue Accounts	Expenditure	Unexpended	Balance from 1918	Appropriated from Revenue	Transfers	Cash Receipts	Total Appropriation
9— 1	Library, Wages	\$14,450.63			\$14,450.63			\$14,450.63
	O. E.	7,037.23	\$1,132.81		4,300.00		\$3,870.04	8,170.04
9— 2	Restoring Portraits, Memorial Hall and Library		6.83	6.83				6.83
9— 3	Re-construction Library and Memorial Hall	434.61	17.58	452.19				452.19
		\$21,922.47	\$1,157.22	\$459.02	\$18,750.63		\$3,870.04	\$23,079.69

11—Cemeteries

11— 1	Cemeteries	\$13,315.30	\$4,733.17	\$2,319.24			\$15,729.23	\$18,048.47
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12—Fixed Charges

12— 1	Interest	\$184,768.62			\$184,768.62			\$184,768.62
12— 2	City Debt	412,621.30			412,621.30			412,621.30
12— 3	Sinking Fund	30,500.00			30,500.00			30,500.00
		\$627,889.92			\$627,889.92			\$627,889.92

13—Agency, Trust, Investments, Transactions

13— 1	State Tax	\$211,860.00			\$211,860.00			\$211,860.00
13— 2	Non-Resident Bank Tax	11,740.43	\$150.05		11,890.48			11,890.48
13— 3	County Tax	104,993.10			104,993.10			104,993.10
13— 5	Grade Crossings	4,480.00			4,480.00			4,480.00
13— 6	State Highways Tax	2,631.31			2,631.31			2,631.31
		\$335,704.84	\$150.05		\$335,854.89			\$335,854.89

NON-REVENUE—APPROPRIATIONS, RECEIPTS AND PAYMENTS

1—Commissioner of Public Safety

No.	Non-Revenue Accounts	Expenditure	Unexpended	Balance from 1918	Appropriated from Revenue	Transfers	Cash Receipts	Total Appropriation
N. 3—1	Sewer Construction	\$69,291.67	\$4,240.07	\$ 6,531.74	\$67,000.00			\$ 73,531.74
N. 3—2	Isolation Hospital	71,126.71	1,461.66	72,587.42			\$.95	72,588.37
N. 3—3	Isolation Hospital—equipment and furnishings	21,300.00	2,700.00	24,000.00				24,000.00
		\$161,718.38	\$8,401.73	\$103,119.16	\$67,000.00		\$.95	\$170,120.11

3—Commissioner of Streets and Highways

N. 4—1	Paving	\$59,813.61	\$ 80.36	\$ 6,676.93	\$51,144.44		\$1,772.60	\$59,893.97
N. 4—2	Macadamizing	25,804.52	124.01	928.53	25,000.00			25,928.53
N. 4—3	New Sidewalks	5,208.89	281.04	325.49	5,164.44			5,489.93
N. 4—4	Wedge and Parker Sts. ....		.10	.10				.10
N. 4—6	Pawtucket Falls Bridge	2,500.00		2,500.00				2,500.00
N. 4—7	Widening School and Mam- moth Road	2,430.05	632.69	3,062.74				3,062.74
N. 4—8	Safe Buildings, Dummer St.	50.00	102.30	152.30				152.30
		\$95,807.07	\$1,220.50	\$13,646.09	\$81,608.88		\$1,772.60	\$97,027.57

NON—REVENUE APPROPRIATIONS, RECEIPTS AND PAYMENTS—Continued

7—School Department								
No.	Non-Revenue Accounts	Expenditure	Unexpended	Balance from 1918	Appropriated from Revenue	Transfers	Cash Receipts	Total Appropriation
7— 1	Acquiring Land, Constructing New High School	\$49,014.43	\$27,913.40	\$ 76,927.83				\$76,927.83
7— 2	Acquiring Land, Constructing Schools	92,582.71	13,162.67	105,365.38			\$380.00	105,745.38
7— 3	School House Repairs, State Police	179.38	.30	179.68				179.68
		\$141,776.52	\$41,076.37	\$182,472.89			\$380.00	\$182,852.89
6—Recreation								
8— 2	Chambers Street Playground ...		\$ 892.45	\$ 892.45				\$892.45
8— 3	Land for Public Parks		1,252.12	1,252.12				1,252.12
8— 4	Park Purposes		2,371.74	2,371.74				2,371.74
8— 5	Fairgrounds, Park	20,012.50	56.34	20,068.84				20,068.84
		\$20,012.50	\$4,572.65	\$24,585.15				\$24,585.15
10—Commissioner of Fire and Water								
10— 1	Purifying and Constructing Water System	\$2,308.80		\$2,308.80				\$2,308.80
10— 2	Purchase Land	100.00		100.00				100.00
10— 3	Ad. to Plant No. 2	985.00	\$3,785.51	4,770.51				4,770.51
		\$3,393.80	\$3,785.51	\$7,179.31				\$7,179.31
14—Unclassified								
10— 1	Municipal Purposes	\$3.35	\$202.61	\$205.96				\$205.96

RECAPITULATION

Revenue Account									
No.	Expenditure	Unexpended	Balance from 1918	Appropriated from Revenue	Appropriated From Loans	Transfers	Cash Receipts	Total Appropriation	
1—Public Safety	\$645,068.02	\$ 7,537.80	\$ 17,011.52	\$631,619.66		\$2,353.58	\$ 1,621.06	\$652,605.82	
2—Finance	81,073.52	996.49		81,313.11		756.90		82,070.01	
3—Streets and Highways	379,692.49	444.98		371,736.65		8,154.82	246.00	380,137.47	
4—Fire and Water	590,002.80	5,846.82	9,574.89	235,892.10		5,308.80	301,136.81	551,912.60	
5—Public Property & Licenses	171,061.91	1,176.75		158,959.84		12,968.82	310.00	172,238.66	
6—Recreation	23,385.50	1,637.13	272.00	23,287.13			1,463.50	25,022.63	
7—Schools	609,956.77	12,345.32		597,703.41		23,025.49	1,573.19	622,302.09	
8—Municipal Council	85,075.81	502.19	251.84	84,425.93		759.25	140.98	85,578.00	
9—Library Trustees	21,922.47	1,157.22	459.02	18,750.63			3,870.04	23,079.69	
11—Cemeteries	13,315.30	4,733.17	2,319.24				15,729.23	18,048.47	
12—Fixed Charges	627,889.92			627,889.92				627,889.92	
13—Agency, Trust, Investments, Transactions	335,704.84	150.05		335,854.89				335,854.89	
	\$3,584,233.05	\$35,944.12	\$29,888.51	\$3,167,433.27		\$53,327.66	\$326,090.81	\$3,576,740.25	
Non-Revenue Account									
1—Public Safety	\$161,718.38	\$ 8,401.73	\$103,119.16		\$ 67,000.00		\$.95	\$170,120.11	
3—Streets and Highways	95,807.07	1,220.50	13,646.09		81,608.88		1,772.60	97,027.57	
7—Schools	141,776.52	41,076.37	182,472.89				380.00	182,852.89	
6—Recreation	20,012.50	4,572.65	24,585.15					24,585.15	
10—Fire and Water	3,393.80	3,785.51	7,179.31					7,179.31	
4—Unclassified	3.35	202.61	205.96					205.96	
	\$422,711.62	\$59,259.37	\$331,208.56		\$148,608.88		\$2,153.55	\$481,970.99	

CLASSIFICATION OF
EXPENSES
REVENUE

DEPARTMENTAL

MAYOR'S DEPARTMENT

Appropriation	\$ 6,093.26	
	<hr/>	\$ 6,093.26

Expended

Salaries :

To Perry D. Thompson,

Commissioner of Public Safety \$ 3,000.00

J. Joseph Hennessy, Secretary 2,056.34

Other Expenses :

For Office Supplies 305.09

Printing, Binding, etc. 3.50

Telephone 56.93

Transfers 63.00

Transportation 33.30

All Other Expenses 131.44

Returned to Treasury		\$ 5,649.60
		443.66

\$ 6,093.26
OTHER COMMISSIONERS

Appropriation	\$ 10,622.55	
	<hr/>	\$ 10,622.55

Expended

Salaries :

To George H. Brown, Commissioner of Water

Works and Fire Protection \$ 2,500.00

James E. Donnelly, Commissioner of

Finance 2,500.00

Charles J. Morse, Commissioner of Streets

and Highways 2,500.00

Francis A. Warnock, Commissioner of

Public Property and Licenses 2,500.00

Other Expenses :

For Advertising 47.21

Office Supplies 68.30

Printing, Binding, etc. 339.86

Telephone 9.48

Transfers 18.00

Transportation 72.90

All Other Expenses 66.80

\$ 10,622.55

AUDITING DEPARTMENT

Appropriation	\$ 6,400.00	
	<hr/>	\$ 6,400.00

Expended

Salaries:

To Charles D. Paige, Auditor	\$ 2,500.00
Clerks	2,750.00

Other Expenses:

For Office Supplies	391.90
Printing, Binding, etc.	666.60
All Other Expenses	90.18

6,398.68

Returned to Treasury	1.32
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\$ 6,400.00
TREASURER AND COLLECTOR'S DEPARTMENT

Appropriation	\$ 17,315.81	
	<hr/>	\$ 17,315.81

Expended

Salaries and Wages:

To Fred H. Rourke, Treasurer and Collector	\$ 2,620.16
Andrew G. Stiles, Treasurer and Collector	79.84
Clerks	9,702.84
Writing Tax Bills	230.00

Other Expenses:

For Advertising	403.76
Expenses on Bonds, etc.	270.85
Office Supplies	2,482.00
Premiums on Bonds	700.00
Printing, Binding, etc.	371.58
Telephone	29.84
All Other Expenses	87.78

16,978.65

Returned to Treasury	337.16
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\$ 17,315.81

ASSESSORS' DEPARTMENT

Appropriation	\$ 16,824.50	
	<hr/>	\$ 16,824.50
Expended		
Salaries and Wages:		
To Albert J. Blazon, Assessor	\$ 2,250.00	
Daniel E. Hogan, Assessor	2,250.00	
Jeremiah J. O'Sullivan, Assessor	2,250.00	
Permanent Clerks	} 8,574.50	
Temporary Clerks		
Assistant Assessors		
Other Expenses:		
For Office Supplies	56.41	
Printing, Binding, etc.	1,296.19	
Telephone	7.13	
Transfers	22.50	
All Other Expenses	110.17	
	<hr/>	16,816.90
Returned to Treasury		7.60
		<hr/>
		\$ 16,824.50

LICENSE COMMISSION

Appropriation	\$ 4,700.00	
	<hr/>	\$ 4,700.00
Expended		
Salaries and Wages:		
To Thomas P. Boulger	\$ 750.00	
Charles H. Hanson	800.00	
George E. Putnam	750.00	
Clerical Service	2,064.04	
Other Expenses:		
For Advertising	30.32	
Office Supplies	32.93	
Printing, Binding, etc.	161.50	
All Other Expenses	40.95	
	<hr/>	4,629.74
Returned to Treasury		70.26
		<hr/>
		\$ 4,700.00

LAW DEPARTMENT

Appropriation	\$ 5,027.21	
	<hr/>	\$ 5,027.21

Expended

Salaries :		
To William D. Regan	\$ 3,000.00	
Clerk	1,100.00	
Other Expenses :		
For Books and Binding	159.70	
Legal Expenses	153.66	
Office Supplies	399.36	
Telephone	43.54	
Transfers	22.50	
All Other Expenses	107.82	
	<hr/>	4,986.58
Returned to Treasury		40.63
		<hr/>
		\$ 5,027.21

CITY CLERK'S DEPARTMENT

Appropriation	\$ 10,461.35	
	<hr/>	\$ 10,461.35

Expended

Salaries :		
To Stephen Flynn, City Clerk	\$ 2,550.00	
William P. McCarthy, Assistant Clerk	2,050.00	
Clerks	3,798.39	
Other Expenses :		
For Advertising	7.10	
Birth Returns	1,020.19	
Office Supplies, Printing, etc.	873.73	
Telephone	13.55	
Transportation	63.00	
All Other Expenses	23.78	
	<hr/>	10,399.74
Returned to Treasury		61.61
		<hr/>
		\$ 10,461.35

CITY MESSENGER'S DEPARTMENT

Appropriation	\$ 1,505.69	
	<hr/>	\$ 1,505.69

Expended

Salary:

To Owen A. Monahan	\$ 1,400.00
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Other Expenses:

For Office Supplies	67.88
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Telephone	12.31
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Transfers	21.00
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All Other Expenses	4.50
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	<hr/>	\$ 1,505.69
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ENGINEERING DEPARTMENT

Appropriation	\$ 14,384.35	
	<hr/>	\$ 14,384.35

Expended

Salaries and Wages:

To Stephen Kearney, City Engineer	\$ 2,700.00
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All Other Service	11,439.70
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Other Expenses:

For Office Supplies	77.12
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Telephone	14.70
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Transfers	53.50
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All Other Expenses	99.33
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	<hr/>	\$ 14,384.35
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ELECTIONS AND REGISTRATION

Appropriation	\$ 20,401.99	
	<hr/>	\$ 20,401.99
Expended		
Salaries and Wages :		
To Hugh C. McOsker	\$ 800.00	
J. Omer Allard	750.00	
Francis M. Qua	184.52	
Fred Harrison	562.50	
Precinct Officers	7,144.00	
Public Buildings Labor	2,762.82	
Police Service	50.00	
All Other Service	3,080.75	
Other Expenses :		
For Advertising	414.58	
Printing, Binding, Office Supplies, etc.	2,476.54	
Catering	187.85	
Lighting	13.67	
Lumber	424.32	
Teaming	881.25	
Telephone	59.82	
Transfers	27.42	
Other Supplies	145.55	
Work on Boxes	89.75	
All Other Expenses	346.65	
	<hr/>	\$ 20,401.99

PURCHASING DEPARTMENT

Appropriation	\$ 9,131.36	
	<hr/>	\$ 9,131.36
Expended		
Salaries :		
To Edward H. Foye, Purchasing Agent	\$ 2,353.97	
Maxime Lepine, Purchasing Agent	59.17	
Inspectors and Clerks	3,903.28	
Other Expenses :		
For Advertising	\$ 25.38	
Automobile Supplies and Repairs	653.41	
Office Supplies, Printing, etc.	1,366.87	
Telephone	18.75	
Transportation	73.20	
All Other Expenses	93.75	
	<hr/>	8,547.78
Returned to Treasury		583.58
		<hr/>
		\$ 9,131.36

CITY HALL DEPARTMENT

Appropriation	\$ 23,517.17	
	<hr/>	\$23 517.17

Expended

Wages :

To Engineers and Firemen	\$ 4,676.19
Matrons	3,802.25
Janitors and Elevator Service	4,450.20
All Other	28.00

Other Expenses :

For Decorations	250.00
Fuel and Light	7,796.86
Furniture and Furnishings	133.00
Ice	272.82
Janitors' Supplies	379.41
Laundry	83.62
Transfers	604.60
Water	398.22
All Other Expenses	642.00

\$ 23,517.17

INSURANCE

Appropriation	\$ 6,079.29	
	<hr/>	\$ 6,079.29

Expended

To Various Persons and Firms	\$ 6,079.29	
	<hr/>	\$ 6,079.29

REGISTRAR OF LABOR

Appropriation	\$ 535.00	
	<hr/>	\$ 535.00

Expended

Salaries :

To Patrick J. Reynolds, Registrar of Labor	\$ 500.00
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Other Expenses :

For Office Supplies	15.78
Transfers	19.00

\$ 534.78

Returned to Treasury22
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\$ 535.00

REVENUE

PROTECTION PERSONS
AND PROPERTY

POLICE DEPARTMENT

Appropriation	\$215,156.39	
	<hr/>	\$215,156.39

Expended

Salaries and Labor :

To Redmond Welch, Supt. Police	\$ 2,400.00
All Other Salaries and Labor	198,750.84

Other Expenses :

For Auto Care and Supplies	\$ 2,308.03
Coal and Wood	1,513.97
Equipment for Men	33.36
Gas and Electricity	694.39
Hay, Grain, etc.	406.31
Harnesses, Stable Supplies, etc.	99.06
Ice	109.50
Janitors' Supplies	80.97
Office Supplies, Printing, etc.	904.92
Pensions	6,308.92
Prisoners, Care, Transportation	60.12
Shoeing	103.70
Telephone	142.69
Transfers	17.00
Water	241.75
All Other Supplies	517.37
All Other Expenses	463.49
	<hr/>
	\$215,156.39

FIRE DEPARTMENT

Appropriation	\$237,725.24	
	<hr/>	\$237,725.24

Expended

Salaries and Labor:

To Edward F. Saunders, Chief Fire Dept.	\$ 2,500.00
All Other Salaries and Labor	192,943.00

Other Expenses:

Equipment and Repairs:

For Equipment for Men	238.00
Hose and Fittings	1,365.56
All Other Expenses	3,503.42

Horses and Care of Same:

For Hay, Grain, Straw, etc.	7,694.55
Horses and Hire of Horses	1,750.00
Shoeing	1,147.07
Stable Supplies, Harnesses, etc.	526.13
All Other Expenses	235.20

Main. Buildings and Grounds:

For Coal and Wood	4,938.37
Furniture and Furnishings	155.60
Gas and Electricity	2,413.27
Laundry	940.37
All Other	425.14

Other Expenses:

For Automobile Repairs and Supplies	3,157.22
Fire Alarm Boxes	2,395.74
Insurance	830.66
Office Supplies and Printing	206.10
Pensions	7,549.10
Telephone	333.98
Transfers	11.00
Various Other Supplies	1,098.36
Water	608.65
All Other Expenses	364.25

	<hr/>	237,230.74
Returned to Treasury		494.50
	<hr/>	\$237,725.24
	<hr/>	

RIFLE RANGE DEPARTMENT

Appropriation	\$ 1,300.00	
	<u> </u>	\$ 1,300.00

Expended

Salary :

To Raymond Eastman, Keeper	\$ 912.50	
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Other Expenses :

For Fuel	22.30	
Targets and Pasters	25.11	
Telephone	46.83	
Transfers	100.00	
Various Supplies	155.70	
All Other Expenses	27.72	

	<u> </u>	1,290.16
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Returned to Treasury		9.84
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	<u> </u>	\$ 1,300.00
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INSPECTION BUILDINGS

Appropriation	\$ 89,536.71	
	<hr/>	\$ 89,536.71

Expended

Salaries and Wages:

To Francis A. Connor, Supt. Public Buildings	\$ 2,000.00
All Other Salaries and Labor	49,251.02

Other Expenses:

For Automobile Supplies and Repairs	1,386.24	
Electrical Supplies	304.21	
Fuel, Light and Power	895.43	
Hardware	2,384.64	
Harnesses, Stable Supplies, etc.	453.05	
Hay, Grain, etc.	1,096.27	
Lumber	5,453.19	
Mason Work and Supplies	2,313.93	
Office Supplies, Printing, etc.	341.94	
Paints, Oils, Glass, etc.	4,507.40	
Pensions	2,182.20	
Pipe, Fittings, Heating, Plumbing, etc.	13,426.53	
Shoeing	139.90	
Telephone	31.01	
Transfers	9.34	
Various Other Supplies	779.96	
Water	57.60	
All Other Supplies	1,701.35	
	<hr/>	88,715.21
Returned to Treasury		821.50

\$ 89,536.71

INSPECTION WIRES

Appropriation	\$ 2,857.40	
	<u> </u>	\$ 2,857.40

Expended**Salaries:**

To William H. Mahan, Inspector Wires	\$ 1,600.00
All Other Service	1,036.30

Other Expenses:

For Office Supplies, Printing, etc.	135.05
Transfers	8.00
Transportation, Car Fares, etc.	60.00
All Other Expenses	18.05
	<u> </u>
	\$ 2,857.40

SEALER WEIGHTS AND MEASURES

Appropriation	\$ 5,593.71	
	<u> </u>	\$ 5,593.71

Salaries:

To Warren P. Riordan, City Sealer	\$ 1,500.00
All Other Service	3,336.57

Other Expenses:

For Advertising	25.89
Equipment	158.29
Office Supplies, Printing, etc.	73.87
Telephone	62.56
Transfers	277.70
Transportation, etc.	50.17
All Other Expenses	108.66
	<u> </u>
	\$ 5,593.71

FORESTRY—MOTH EXTERMINATION

Appropriation	\$ 7,607.98	
	<u> </u>	\$ 7,607.98

Expended

Salaries and Wages:

To John G. Gordon, Superintendent ..	}	\$ 5,613.04
All Other Service		

Other Expenses:

For Arsenate of Lead	703.70	
Equipment, Hardware, Repairs, etc.	98.31	
Office Supplies, Printing, etc.	32.57	
Transfers	413.93	
Transportation	194.10	
All Other Expenses	446.62	
	<u> </u>	7,502.27

Returned to Treasury		105.71
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	<u> </u>	\$ 7,607.98
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FISH AND GAME WARDENS

Appropriation	\$ 150.00	
	<u> </u>	\$ 150.00

Expended

Salaries:

To Harry Gonzales	\$ 100.00	
Elmer H. Houghton	50.00	
	<u> </u>	\$ 150.00

POUND KEEPER

Appropriation	\$ 5.00	
	<hr/>	\$ 5.00
Expended		
Salaries :		
To Orville W. Peabody	\$ 1.42	
A. B. Humphrey	3.16	
	<hr/>	4.58
Returned to Treasury .....		.42
		<hr/>
		\$ 5.00
		<hr/>

CITY WEAHER

Appropriation	\$ 1,010.00	
	<hr/>	\$ 1,010.00
Expended		
Salary :		
To George F. Noonan, City Weigher	\$ 1,000.00	
Other Expenses :		
For Printing	8.00	
	<hr/>	\$ 1,008.00
Returned to Treasury		2.00
		<hr/>
		\$ 1,010.00
		<hr/>

WATERWAYS

Appropriation	\$ 600.00	
	<hr/>	\$ 600.00
Expended		
Other Expenses :		
For Life Saving Apparatus	\$ 145.67	
Transfers	141.32	
All Other Expenses	239.46	
	<hr/>	526.45
Returned to Treasury		73.55
		<hr/>
		\$ 600.00
		<hr/>

POLICE WIRES

Appropriation	\$ 500.00	
Returned to Treasury		\$ 500.00

FIRE—TRIPLE COMBINATION

Balance from 1917	\$ 6,000.00	
		\$ 6,000.00

Expended

Other Expenses:		
For Triple Combination	\$ 6,000.00	
		\$ 6,000.00

DISTRICT POLICE—SPECIAL

Appropriation	\$ 13,000.00	
		\$ 13,000.00

Expended

Salaries and Labor:		
To Various Persons for Services	\$ 5,517.00	
Other Expenses:		
For Fire Escapes	2,641.00	
Lumber	712.04	
Mason Supplies and Work	308.45	
Transfers	2,146.46	
Various Other Supplies	1,617.05	
All Other Expenses	57.60	
		12,999.60
Returned to Treasury .....		.40
		\$ 13,000.00

NEW BOILERS—CITY HALL

Appropriation	\$ 15,310.00	
		\$ 15,310.00

Expended

Other Expenses:		
For Advertising	\$ 3.47	
Boiler Contract	8,000.00	
Brick Work Contract	3,072.00	
Piping Contract	4,007.31	
All Other Expenses	61.85	
		15,144.83
Returned to Treasury		165.17
		\$ 15,310.00

REVENUE

HEALTH AND SANITATION

HEALTH OFFICE

Appropriation	\$ 43,004.00	
	<hr/>	\$ 43,004.00

Expended

Salaries and Wages:

To P. Brunelle	}	Board of Health	\$ 1,500.00
T. F. Carroll			
J. E. Drury			
All Other Service			15,157.55

Other Expenses:

For Bacteriologist (temporary services)	416.65	
Board and Treatment	9,549.64	
Dry Goods, Clothing, etc.	15.48	
Drugs, Medicines, etc.	473.84	
Groceries and Provisions	1,480.79	
Influenza Epidemic	5,140.11	
Medical Attendance	741.75	
Office Supplies, Printing, etc.	740.08	
Telephone	103.65	
Transportation, Traveling Expenses	601.69	
Transfers	1,019.01	
All Other Expenses	703.84	
	<hr/>	\$ 37,644.08

Returned to Treasury	5,359.92	
	<hr/>	\$ 43,004.00
		<hr/>

REFUSE AND GARBAGE

Appropriation	\$ 95,173.56	
	<hr/>	\$ 95,173.56

Expended

Wages:		
To Labor	\$ 72,954.10	
Other Expenses:		
For Compensation (U. S. S.)	322.35	
Hardware, Blacksmiths' Supplies	528.44	
Harnesses, Stable Supplies, etc.	585.87	
Hay, Grain, etc.	15,738.82	
Hire Horse, Teaming, etc.	3,384.50	
Laundry	400.75	
Lighting	173.06	
Transfers	200.00	
Water	179.74	
All Other Expenses	705.93	
	<hr/>	\$ 95,173.56
		<hr/>

SMOKE INSPECTION

Appropriation	\$ 340.00	
	<hr/>	\$ 340.00

Expended

Salary:		
To Charles J. Riley	\$ 300.00	
Other Expenses:		
For Office Supplies, Printing, etc.	2.35	
Transportation	10.00	
All Other Expenses	3.56	
	<hr/>	315.91
Returned to Treasury		24.09
		<hr/>
		\$ 340.00
		<hr/>

INSPECTION SCHOOL CHILDREN

Appropriation	\$ 800.00	
	<u> </u>	\$ 800.00

Expended

Salaries:

To Various Physicians	\$ 800.00	
	<u> </u>	\$ 800.00

INSPECTION ANIMALS

Appropriation	\$ 510.00	
	<u> </u>	\$ 510.00

Expended

Salary:

To Walter A. Sherman, Inspector of Animals	\$ 500.00	
	<u> </u>	500.00

Returned to Treasury		10.00
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	<u> </u>	\$ 510.00
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INSPECTION MILK AND VINEGAR

Appropriation	\$ 3,526.41	
	<u> </u>	\$ 3,526.41

Salaries:

To Melvin F. Master, Inspector of Milk and		
Vinegar	\$ 1,733.32	
Collector	1,059.09	

Other Expenses:

For Chemical Equipment and Supplies	108.61	
Office Supplies and Printing	5.00	
Traveling Expenses	33.99	
All Other Expenses	68.67	

	<u> </u>	3,008.68
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Returned to Treasury		517.73
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	<u> </u>	\$ 3,526.41
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COMFORT STATION

Appropriation	\$ 6,300.00	
	<hr/>	\$ 6,300.00

Expended

Wages :		
To Labor	\$ 5,020.00	
Other Expenses :		
For Fuel and Light	507.13	
Janitors' Supplies	221.30	
Water	471.64	
All Other	78.06	
	<hr/>	6,298.13
Returned to Treasury		1.87
		<hr/>
		\$ 6,300.00
		<hr/>

SEWER MAINTENANCE

Appropriation	\$ 16,000.00	
	<hr/>	\$ 16,000.00

Expended

Wages :		
To Labor	\$ 14,713.46	
Other Expenses :		
For Equipment, Hardware, etc.	705.43	
Fuel and Lighting	214.89	
Hay, Grain, etc.	2.16	
Lighting	46.25	
Office Supplies, Printing, etc.	81.00	
All Other Expenses	201.38	
	<hr/>	15,964.57
Returned to Treasury		35.43
		<hr/>
		\$ 16,000.00
		<hr/>

REVENUE



HIGHWAYS AND BRIDGES

HIGHWAYS

Appropriation	\$206,199.61	
	<hr/>	\$206,191.61

Expended

Salaries and Labor:

To John B. Blessington, Superintendent of Streets	\$ 2,300.00
Clerical Service and Labor	168,594.84

Other Expenses:

For Autos, Care and Supplies	3,099.70
Concrete, Tar, Oil and Asphalt	2,914.78
Edgestone and Flagging	251.52
Equipment, Hardware, etc.	3,296.25
Freight	1,510.73
Fuel	432.15
Harnesses, Stable Supplies, etc.	244.41
Hay, Grain, etc.	15,943.54
Horse Medicine, Veterinary	154.67
Service	
Lighting	396.89
Lumber	1,527.95
Office Supplies and Printing	593.49
Telephone	115.73
Teaming, Use of Horses and Autos	328.50
Transfers	2,338.84
Various Other Supplies	440.40
Water	483.75
All Other Expenses	943.80

	<hr/>	\$205,911.94
Returned to Treasury		287.67
	<hr/>	<hr/>
		\$206,199.61

SPRINKLING STREETS

Appropriation	\$ 23,553.51	
..	<u> </u>	\$ 23,553.51

Expended

Wages :		
To Labor	\$ 2,053.51	
Other Expenses :		
For Hardware, Equipment, etc.	49.42	
Oil and Applying Oil	10,595.39	
Transfers	1,824.20	
Use Track, Power and Street Sprinkler	6,109.70	
All Other Expenses	2,919.94	
	<u> </u>	\$ 23,552.16
Returned to Treasury		1.35
		<u> </u>
		\$ 23,553.51

STREET LIGHTING

Appropriation	\$120,000.00	
		\$120,000.00

Expended

Other Expenses :		
For Electrical Lighting	\$ 88,202.96	
Gas Lighting	31,656.51	
All Other Expenses	20.00	
	<u> </u>	119,879.47
Returned to Treasury		120.53
		<u> </u>
		\$120,000.00

REVENUE

CHARITIES

CHARITY DEPARTMENT

Appropriation	\$140,771.85	
	<hr/>	\$140,771.85

Expended

Salaries and Wages:

To Martin F. Conley. Superintendent	\$ 1,500.00
All Other Service	26,298.54

All Other Expenses:

Outside Relief by City:

For Burials	292.00
Coal and Wood	1,201.10
Medicine and Medical Attendance	1,404.79

Outside Relief, City:

State Institutions	773.54
Other Institutions	8,978.50

Relief, Other Cities, Towns:

Cities	1,113.66
Towns	435.48

Other Expenses	1,596.84
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Chelmsford Street Hospital:

For Drugs, Chemicals, etc.	1,205.94
Dry Goods, Clothing, etc.	5,122.65
Equipment, Hardware, etc.	2,150.48
Furniture, etc.	80.40
Groceries, Provisions, etc.	43,694.00
Hay, Grain, Straw, etc.	8,731.03
Power, Fuel and Light	21,004.09
Other Expenses	3,718.29

All Other Expenses:

For Ambulance Service	3,900.00
Cash Allowance	5,686.94
Office Supplies and Printing	194.13
Transfers	1,512.18
Transportation	140.36
All Other Expenses	36.91

\$140,771.85

MOTHERS—DEPENDENT CHILDREN

Appropriation	\$ 46,313.16	
	<hr/>	\$ 46,313.16

Expended

Other Expenses :

For Board and Medical Care	\$ 234.00	
Burials	100.00	
Mothers with Dependent Children	45,035.66	
All Other Expenses	943.50	
	<hr/>	\$ 46,313.16
		<hr/>

REVENUE

SOLDIERS' BENEFITS

SOLDIERS' BENEFITS—OFFICE

Appropriation	\$ 2,541.94	
	<hr/>	\$ 2,541.94

Expended

Salaries :

To George E. Worthen, Supt. State Aid	\$ 1,400.00
Mary F. McCrann, Asst. Supt. State Aid	1,000.00

Other Expenses :

For Office Supplies and Printing	45.80
Transfers	28.00
All Other Expenses	68.14

<hr/>	\$ 2,541.94
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STATE AID

Appropriation	\$ 11,018.00	
	<hr/>	\$ 11,018.00

Expended

To Various Persons	\$ 11,000.00	
	<hr/>	\$ 11,000.00
Returned to Treasury		18.00

<hr/>	\$ 11,018.00
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MILITARY AID

Appropriation	\$ 1,810.00	
	<hr/>	\$ 1,810.00

Expended

To Various Persons	\$ 1,766.00	
	<hr/>	1,776.00
Returned to Treasury		44.00

<hr/>	\$ 1,810.00
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SOLDIERS' RELIEF

Appropriation	\$ 14,643.87	
	<hr/>	\$ 14,643.87

Expended

Other Expenses :

For Aid (Various Persons)	\$ 10,408.00
Burials	300.00
Fuel	284.93
Groceries and Provisions	2,035.96
Medicine and Medical Attendance	509.54
Transfers	26.25
All Other Expenses	179.19

<hr/>	\$ 14,643.87
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SOLDIERS' GRAVES

Appropriation	\$ 250.00	
	<hr/>	\$ 250.00

Expended

Other Expenses :		
For Setting Stones	\$ 148.35	
All Other Expenses	91.35	
	<hr/>	239.70
Returned to Treasury .....	..	10.30
		<hr/>
		\$ 250.00

GERMAN WAR

Appropriation	\$ 57,410.54	
	<hr/>	\$ 57,410.54

Expended

To Various Persons	\$ 57,410.54	
	<hr/>	\$ 57,410.54
		<hr/>

REVENUE



EDUCATION

SCHOOL DEPARTMENT

Appropriation	\$563,207.73	
	<hr/>	\$563,207.73

Expended

Salaries and Wages:		
To Hugh J. Molloy, Supt. of Schools	\$ 3,500.00	
All Other Salaries and Labor	404,251.64	
Transfers	23,025.49	
Other Expenses:		
For Automobile Supplies and Repairs	843.11	
Board of Truants, Training School	1,648.25	
Fuel and Light	43,705.25	
Furniture and Furnishings	904.79	
Hardware	2,527.22	
Laundry	875.68	
Office Supplies, Printing, etc.	443.54	
Paper, Pens, Pencils, etc.	8,072.23	
Provisions	448.98	
Printing	1,941.15	
Rental Theatre	325.00	
Text and Reference Books	4,841.93	
Transportation	1,438.20	
Training School, State Agreement	23,025.49	
Telephone	742.00	
Transfers	8,751.04	
Typewriters	3,585.00	
Various Other Supplies	5,084.59	
Water	2,306.88	
All Other Expenses	10,097.40	
	<hr/>	552,384.86
Returned to Treasury		10,822.87
		<hr/>
		\$563,207.73
		<hr/>

INDUSTRIAL SCHOOL

Appropriation	\$ 39,094.36	
	<u> </u>	\$ 39,094.36

Expended

Salaries and Wages :		
To Various Persons	\$ 28,477.55	
Other Expenses :		
For Electrical Supplies, Machinery, Tools,		
Hardware, etc.	4,412.75	
Laundry	464.53	
Lumber	595.94	
Power, Fuel and Light	2,239.39	
Printing, Office Supplies, etc.	128.21	
Supplies for Girls' Course	397.03	
Text and Reference Books	35.99	
Telephone	110.55	
Transfers	38.00	
All Other Supplies	671.97	
	<u> </u>	\$ 37,571.91
Returned to Treasury		1,522.45
		<u> </u>
		\$ 39,094.36
		<u> </u>

TEXTILE SCHOOL

Appropriation	\$ 20,000.00	
	<u> </u>	\$ 20,000.00

Expended

To Trustees Lowell Textile School	\$ 20,000.00	
	<u> </u>	\$ 20,000.00
		<u> </u>

REVENUE

RECREATION

PARK DEPARTMENT

Appropriation	\$ 18,372.63	
	<hr/>	\$ 18,372.63
Expended		
Salaries and Wages:		
To Various Persons	\$ 9,963.67	
Other Expenses:		
For Autos, Auto Supplies, Repairs, etc.	2,001.48	
Hardware, Equipment, etc.	1,137.50	
Hay, Grain, etc.	733.89	
Office Supplies, Printing, etc.	172.86	
Payments to Enlisted Soldiers	753.00	
Plants, Trees, etc.	513.05	
Telephone	27.40	
Transfers	20.27	
Various Other Supplies	759.58	
Work on South Common Pool	81.50	
All Other Supplies	1,172.10	
	<hr/>	\$ 17,336.30
Returned to Treasury		1,036.33
		<hr/>
		\$ 18,372.63
		<hr/>

SPECIAL—PARKS

Appropriation	\$ 6,000.00	
	<hr/>	\$ 6,000.00
Expended		
Wages:		
For Labor	\$ 2,794.35	
Other Expenses:		
For Concrete Work	1,448.50	
Hardware, Equipment, etc.	48.79	
Lumber	1.21	
Moving Pictures	152.18	
Plants, Shrubs, etc.	43.50	
Transfers	16.00	
All Other Expenses	895.94	
	<hr/>	\$ 5,400.47
Returned to Treasury		599.53
		<hr/>
		\$ 6,000.00
		<hr/>

FOURTH OF JULY

Appropriation	\$ 600.00	
	<hr/>	\$ 600.00

Expended

Other Expenses :		
For Chimes	\$ 10.00	
Music	590.00	
	<hr/>	\$ 600.00

LABOR DAY

Appropriation	\$ 1,200.00	
	<hr/>	\$ 1,200.00

Expended

Other Expenses :		
For Badges	\$ 29.72	
Music	931.26	
Prizes	223.00	
Teaming	5.40	
All Other	10.60	
	<hr/>	\$ 1,199.98
Returned to Treasury .....		.02
		<hr/>
		\$ 1,200.00
		<hr/>

BAND CONCERTS

Appropriation	\$ 352.76	
	<hr/>	\$ 352.76

Expended

Other Expenses :		
For Music	\$ 333.00	
Lighting	19.76	
	<hr/>	\$ 352.76

MEMORIAL DAY—G. A. R.

Appropriation	\$ 1,000.00	
	<hr/>	\$ 1,000.00
Expended		
Other Expenses:		
For Flags and Standards	\$ 335.86	
Flowers, Decorations, etc.	71.00	
Music	242.00	
Transportation	96.00	
All Other Expenses	255.14	
	<hr/>	\$ 1,000.00

MEMORIAL DAY—S. W. V.

Appropriation	\$ 400.00	
	<hr/>	\$ 400.00
Expended		
Other Expenses:		
For Catering	\$ 150.00	
Flags	18.00	
Music	137.00	
Transportation	25.00	
All Other Expenses	70.00	
	<hr/>	400.00

MEMORIAL DAY—S. of V.

Appropriation	\$ 150.00	
	<hr/>	\$ 150.00
Expended		
Other Expenses:		
For Various Expenses	\$ 150.00	
	<hr/>	150.00

VETERAN FIREMEN'S ASSOCIATION

Appropriation	\$ 100.00	
	<hr/>	\$ 100.00
Expended		
Other Expenses:		
For Flowers, Decorations, etc.	\$ 52.50	
All Other Expenses	3.50	
	<hr/>	56.00
Returned to Treasury		44.00
		<hr/>
		\$ 100.00

CARDINAL O'CONNELL PARKWAY

Appropriation	\$ 650.00	
	<hr/>	\$ 650.00

Expended

Wages:		
To Labor	\$ 542.07	
Other Expenses:		
For Plants, Trees, etc.	63.00	
All Other Expenses	43.66	
	<hr/>	648.73
Returned to Treasury		1.27
		<hr/>
		\$ 650.00
		<hr/>

REVENUE

LIBRARIES

LIBRARY

Appropriation	\$ 22,620.67	
	<hr/>	\$ 22,620.67

Expended

Salaries and Wages:		
To Frederick A. Chase, City Librarian	\$ 2,200.00	
All Other Service	12,250.63	
Other Expenses:		
For Binding Books and Periodicals	1,159.44	
Books	2,536.28	
Lighting	638.51	
Magazines and Newspapers	863.87	
Office Supplies and Printing	741.41	
Pictures	54.00	
Sub Libraries	304.05	
All Other Expenses	739.67	
	<hr/>	21,487.86
Returned to Treasury		1,132.81
		<hr/>
		\$ 22,620.67
		<hr/>

RESTORING PORTRAITS MEMORIAL HALL

Balance from 1917	\$ 6.83	
	<hr/>	
Returned to Treasury		\$ 6.83
		<hr/>

RECONSTRUCTION LIBRARY AND MEMORIAL HALL

Balance from 1917	\$ 452.19	
	<hr/>	\$ 452.19
Expended		
Other Expenses:		
For Transfers	\$ 376.52	
All Other Expenses	58.09	
	<hr/>	434.61
Returned to Treasury		17.58
		<hr/>
		\$ 452.19
		<hr/>

REVENUE

PUBLIC SERVICE ENTERPRISES

WATER DEPARTMENT

Balance from 1917	\$ 1,941.75	
Cash Receipts	295,784.49	
Transfers	5,108.80	
	<hr/>	\$302,835.04

Expended

Salaries and Labor:		
To Robert J. Thomas, Supt. Water Works	\$ 2,000.00	
All Other Salaries and Labor	134,791.74	
Other Expenses:		
For Auto Repairs and Supplies	10,117.27	
Damages	60.00	
Equipment and Repairs	11,811.34	
Fuel	57,148.38	
Freight	674.07	
Insurance	2,504.27	
Hay, Grain, Straw, etc.	1,397.91	
Lighting	708.58	
Lumber	468.79	
Meters and Fittings	3,746.16	
Office Supplies and Printing	1,686.14	
Oil, Waste, Packing, etc.	2,216.55	
Pipe and Fittings	9,116.10	
Transfers	447.09	
Telephone	485.37	
Refunds	206.61	
Vacancy List	61.18	
Valves, Gates, Hydrants, etc.	1,301.92	
Water Works Debt Payment	47,000.00	
Water Works Interest	56,025.00	
All Other Expenses	2,797.59	
	<hr/>	346,772.06
*The Water Works debt and interest payment de-		
ferred by order of Municipal Council		*27,020.00
		<hr/>
		\$319,752.06
		<hr/>

WATER WORKS—SPECIAL

Interest Receipt	\$ 5,352.32	
	<hr/>	\$ 5,352.32
Balance to 1919	\$ 5,352.32	
	<hr/>	\$ 5,352.32
		<hr/>

REVENUE

CEMETERIES

CEMETERIES

Receipts	\$ 15,729.23	
Balance from 1917	2,319.24	
	<hr/>	\$ 18,048.47

Expended

Salaries and Wages:		
To Thomas Duckworth, Supt. Edson Cemetery	\$ 1,500.00	
Other Salaries and Labor	9,421.42	
Other Expenses:		
For Office Supplies and Printing	150.36	
Hay, Grain, Straw, etc.	192.35	
Mare	300.00	
Perpetual Care Signs	425.24	
Plants, etc.	355.79	
Transfers	16.50	
All Other Expenses	953.64	
	<hr/>	\$ 13,315.30
Balance to 1919		4,733.17
		<hr/>
		\$ 18,048.47
		<hr/>

REVENUE

DEBT, INTEREST, SINKING FUNDS

INTEREST

Appropriation	\$184,768.62	
	<hr/>	\$184,768.62

Expended

For Interest	\$184,768.62	
	<hr/>	\$184,768.62
		<hr/>

CITY DEBT

Appropriation	\$412,621.30	
	<hr/>	\$412,621.30

Expended

To Various Financial Institutions and Individuals	\$412,621.30	
	<hr/>	\$412,621.30
		<hr/>

SINKING FUNDS

Appropriation	\$ 30,500.00	
	<hr/>	\$ 30,500.00

Expended

To Commissioners Sinking Fund	\$ 30,500.00	
	<hr/>	\$ 30,500.00
		<hr/>

REVENUE

TAXES

STATE TAX

Appropriation	\$211,860.00	
	<hr/>	\$211,860.00

Expended

To Commonwealth of Massachusetts	\$211,860.00	
	<hr/>	\$211,860.00
		<hr/>

NATIONAL BANK TAX

Appropriation	\$ 11,890.48	
	<hr/>	\$ 11,890.48

Expended

To Commonwealth of Massachusetts	\$ 11,740.43	
	<hr/>	11,740.43
Returned to Treasury		150.05
		<hr/>
		\$ 11,890.48
		<hr/>

COUNTY TAX

Appropriation	\$104,993.10	
	<hr/>	\$104,993.10

Expended

To County of Middlesex	\$104,993.10	
	<hr/>	\$104,993.10
		<hr/>

LIQUOR LICENSES

Appropriation	\$ 36,400.00	
	<hr/>	\$ 36,400.00

Expended

To Commonwealth of Massachusetts	\$ 36,209.00	
	<hr/>	36,209.00
Returned to Treasury		191.00
		<hr/>
		\$ 36,400.00
		<hr/>

GRADE CROSSINGS

Appropriation	\$ 4,480.00	
	<u> </u>	\$ 4,480.00

Expended

To Commonwealth of Massachusetts	\$ 4,480.00	
	<u> </u>	\$ 4,480.00

STATE HIGHWAY TAX

Appropriation	\$ 2,631.31	
	<u> </u>	\$ 2,631.31

Expended

To Commonwealth of Massachusetts	\$ 2,631.31	
	<u> </u>	\$ 2,631.31

SOLDIERS' EXEMPTION

Appropriation	\$ 33.08	
	<u> </u>	\$ 33.08

Expended

To Commonwealth of Massachusetts	\$ 33.08	
	<u> </u>	\$ 33.08

REVENUE

UNCLASSIFIED

CLAIMS

Appropriation	\$ 14,167.31	
	<hr/>	\$ 14,167.31

Expended

Other Expenses :		
For Damages	\$ 256.41	
Injuries	3,779.70	
Registrar's Salary	1,750.00	
Services and 1917 Bills	2,810.94	
A. G. Stiles and E. H. Foye—Payments	3,876.01	
Street Watering and Tax Refunds	454.11	
Transfers	759.25	
All Other Expenses	213.72	
	<hr/>	\$ 13,900.14
Balance to 1919		267.17
		<hr/>
		\$ 14,167.31
		<hr/>

REVISION OF ORDINANCES

Balance from 1917	\$ 495.50	
	<hr/>	\$ 495.50
Balance to 1919	\$ 495.50	
	<hr/>	\$ 495.50
		<hr/>

AUDITING CITY BOOKS

Appropriation	\$ 1,000.00	
	<hr/>	\$ 1,000.00

Expended

Other Expenses :		
For Auditing	\$ 995.00	
	<hr/>	\$ 995.00
Returned to Treasury		5.00
		<hr/>
		\$ 1,000.00
		<hr/>

WORKMEN'S COMPENSATION ACT

Appropriation	\$ 4,761.24	
	<hr/>	\$ 4,761.24

Expended

Other Expenses :

To Various Persons (Compensation)	\$ 3,804.11	
First Aid, Medical Treatment	463.07	
Injuries and Death Benefits	440.86	
All Other Expenses	53.20	
	<hr/>	\$ 4,761.24

GENERAL EXPENSES

Appropriation	\$ 5,352.31	
	<hr/>	\$ 5,352.31

Expended

For Other Expenses :

Christmas Celebration	\$ 212.63	
City Documents	619.25	
Decorations	200.00	
Music	1,026.21	
Office Supplies, Printing, etc.	2,006.00	
Services	176.90	
Steel Die	150.00	
Transfers	39.00	
Transportation	121.50	
All Other Expenses	800.82	
	<hr/>	\$ 5,352.31

EXECUTION OF COURT

Appropriation	\$ 10,824.59	
	<hr/>	\$ 10,824.59

Expended

Other Expenses :

For Execution of Court	\$ 10,824.59	
	<hr/>	\$ 10,824.59

NON-REVENUE

HEALTH AND SANITATION

SEWER CONSTRUCTION

Balance from 1917	\$ 6,531.74	
Appropriation	67,000.00	
	<hr/>	\$ 73,531.74
Expended		
Wages :		
To Labor	\$ 54,849.08	
Other Expenses :		
For Brick and Cement	1,730.23	
Castings	3,339.53	
Fuel	843.03	
Lumber	1,092.20	
Pipe and Fittings	4,043.52	
Transfers	2,259.43	
All Other Expenses	1,134.65	
	<hr/>	\$ 69,291.67
Balance to 1919		4,240.07
		<hr/>
		\$ 73,531.74
		<hr/>

ISOLATION HOSPITAL

Cash Receipt	\$.95	
Balance from 1917	72,587.42	
	<hr/>	\$ 72,588.37
Expended		
Other Expenses :		
For Architect	\$ 2,900.00	
Contracts	68,174.23	
All Other Expenses	52.48	
	<hr/>	71,126.71
Balance to 1919		1,461.66
		<hr/>
		\$ 72,588.37
		<hr/>

ISOLATION HOSPITAL—EQUIPMENT AND FURNISHINGS

Balance from 1917	\$ 24,000.00	
	<hr/>	\$ 24,000.00
Expended		
Other Expenses :		
For Kitchen Equipment	\$ 14,700.00	
Laundry Equipment	6,600.00	
	<hr/>	21,300.00
Balance to 1919		2,700.00
		<hr/>
		\$ 24,000.00
		<hr/>

NON-REVENUE

HIGHWAYS AND BRIDGES

PAVING

Balance from 1917	\$ 6,676.93	
Appropriation	50,000.00	
Receipts	1,772.60	
Transfers	1,444.44	
	<hr/>	\$ 59,893.97

Expended

Wages :		
To Labor	\$ 38,312.60	
Other Expenses :		
For Brick and Cement	5,096.92	
Concrete	2,193.79	
Paving Blocks	3,983.88	
Teaming	3,899.80	
Crushed Stone	1,609.37	
Edgestone	1,140.94	
Sand and Loam	1,121.46	
Transfers	983.97	
All Other Expenses	1,470.88	
	<hr/>	59,813.61
Balance to 1919		80.36
		<hr/>
		\$ 59,893.97
		<hr/>

MACADAMIZING

Balance from 1917	\$ 928.53	
Appropriation	25,000.00	
	<hr/>	\$ 25,928.53

Expended

Wages :		
To Labor	\$ 15,892.49	
Other Expenses :		
For Concrete	200.99	
Equipment and Repairs	1,176.57	
Freight	342.75	
Oil, Tar and Tarite	3,430.85	
Stone	541.89	
Teaming	1,132.19	
Transfers	111.34	
All Other Expenses	2,975.45	
	<hr/>	25,804.52
Balance to 1919		124.01
		<hr/>
		\$ 25,928.53
		<hr/>

NEW SIDEWALKS

Balance from 1917	\$ 325.49	
Appropriation	5,164.44	
	<hr/>	\$ 5,489.93

Expended

Wages:		
To Labor	\$ 3,022.01	
Other Expenses:		
For Concrete	210.51	
Edgestone	1,566.64	
Granolithic Work	200.50	
Transfers	188.23	
All Other Expenses	21.00	
	<hr/>	5,208.89
Balance to 1919		281.04
		<hr/>
		\$ 5,489.93
		<hr/>

WEDGE AND PORTER STREETS

Balance from 1917	\$.10	
	<hr/>	\$.10
Balance to 1919	\$.10	
	<hr/>	\$.10
		<hr/>

PAWTUCKET FALLS BRIDGE

Balance from 1917	\$ 2,500.00	
	<hr/>	\$ 2,500.00

Expended

Other Expenses:		
For Contract	\$ 2,500.00	
	<hr/>	\$ 2,500.00
		<hr/>

WIDENING SCHOOL AND MAMMOTH ROAD

Balance from 1917	\$ 3,062.74	
	<hr/>	\$ 3,062.74

Expended

Other Expenses :		
For Land and Buildings	\$ 2,336.80	
Transfers	43.25	
All Other Expenses	50.00	
	<hr/>	2,430.05
Balance to 1919		632.69
		<hr/>
		\$ 3,062.74
		<hr/>

SALE BUILDINGS—DUMMER STREET

Balance from 1917	\$ 152.30	
	<hr/>	\$ 152.30

Expended

Other Expenses :		
For Services	\$ 50.00	
	<hr/>	50.00
Balance to 1919		102.30
		<hr/>
		\$ 152.30
		<hr/>

NON - REVENUE

EDUCATION

ACQUIRING LAND, CONSTRUCTING NEW HIGH SCHOOL

Balance from 1917	\$ 76,927.83	
	<hr/>	\$ 76,927.83
Expended		
Wages:		
To Labor	\$ 1,545.22	
Other Expenses:		
For Land	1,150.00	
Paint	270.00	
Steel	45,934.16	
Transfers	107.15	
All Other Expenses	7.90	
	<hr/>	49,014.43
Balance to 1919		27,913.40
		<hr/>
		\$ 76,927.83
		<hr/>

ACQUIRING LAND AND CONSTRUCTING SCHOOLS

Balance from 1917	\$105,365.38	
Receipts	380.00	
	<hr/>	\$105,745.38
Expended		
Wages:		
To Labor	\$ 780.46	
Other Expenses:		
For Architect	2,895.57	
Contracts	86,950.97	
Plumbing	190.90	
Transfers	18.28	
All Other Expenses	1,746.53	
	<hr/>	92,582.71
Balance to 1919		13,162.67
		<hr/>
		\$105,745.38
		<hr/>

SCHOOL HOUSE REPAIRS—STATE POLICE

Balance from 1917	\$ 179.68	
	<hr/>	\$ 179.68
Expended		
Wages:		
To Labor	\$ 179.38	
	<hr/>	\$ 179.38
Balance to 1919 .....		.30
		<hr/>
		\$ 179.68
		<hr/>

NON-REVENUE

RECREATION

CHAMBERS STREET PLAYGROUND

Balance from 1917	\$ 892.45	
	<hr/>	\$ 892.45
Balance to 1919	\$ 892.45	
	<hr/>	\$ 892.45
		<hr/>

LAND FOR PUBLIC PARKS

Balance from 1917	\$ 1,252.12	
	<hr/>	\$ 1,252.12
Balance to 1919	\$ 1,252.12	
	<hr/>	\$ 1,252.12
		<hr/>

PARK PURPOSES

Balance from 1917	\$ 2,371.74	
	<hr/>	\$ 2,371.74
Balance to 1919	\$ 2,371.74	
	<hr/>	\$ 2,371.74
		<hr/>

FAIRGROUNDS—PARKS

Balance from 1917	\$ 19,878.84	
Transfer	190.00	
	<hr/>	\$ 20,068.84

Expended

Other Expenses :		
For Land	\$ 20,006.00	
All Other Expenses	6.50	
	<hr/>	20,012.50
Balance to 1919		56.34
		<hr/>
		\$ 20,068.84
		<hr/>

NON-REVENUE

WATER WORKS

PURIFYING AND CONSTRUCTING WATER SYSTEM

Balance from 1917	\$ 2,308.80	
	<u> </u>	\$ 2,308.80

Expended

Other Expenses :		
For Transfer	\$ 2,308.80	
	<u> </u>	\$ 2,308.80

WATER WORKS—PURCHASE LAND

Balance from 1917	\$ 100.00	
	<u> </u>	\$ 100.00

Expended

Other Expenses :		
For Land	\$ 100.00	
	<u> </u>	\$ 100.00

ADDITIONS TO PLANT NO. 2

Transfer	\$ 4,770.51	
	<u> </u>	\$ 4,770.51

Expended

Other Expenses :		
For Smoke Stack	\$ 985.00	
	<u> </u>	\$ 985.00
Balance to 1919		3,785.51
		<u> </u>
		\$ 4,770.51

NON-REVENUE

UNCLASSIFIED

MUNICIPAL PURPOSES

Balance from 1917	\$ 205.96	
	<hr/>	\$ 205.96
Expended		
Other Expenses:		
For Recording	\$ 3.35	
	<hr/>	\$ 3.35
Balance to 1919		202.61
		<hr/>
		\$ 205.96
		<hr/>

FUNDS

SINKING
HAPGOOD WRIGHT
JOHN DAVIS
CEMETERY

SINKING FUNDS

Water Works due November 1, 1920.

Value January 1, 1918	\$860,752.52
Value December 31, 1918	910,394.56
	<hr/>
Increase during year	\$ 49,642.04

City Hall and Memorial Building due October, 1920.

Value January 1, 1918	\$391,634.24
Value December 31, 1918	415,644.03
	<hr/>
Increase during year	\$ 24,009.79

High School due April, 1921.

Value January 1, 1918	\$132,846.32
Value December 31, 1918	141,475.57
	<hr/>
Increase during year	\$ 8,629.25

New School Houses due July, 1926.

Value January 1, 1918	\$121,452.42
Value December 31, 1918	130,141.15
	<hr/>
Increase during year	\$ 8,688.73

Cemetery Fund

Cemetery Perpetual Care Fund

On hand January 1, 1918	\$105,767.00
On hand December 31, 1918	114,990.00
	<hr/>
Increase during year	\$ 9,225.00

Deposited in banks	\$114,990.00
Interest due on same	24,437.96
	<hr/>

Total amount of fund	\$139,427.96
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Hapgood Wright Centennial Trust Fund

Resolution adopted by the City Council, March 14, 1876: "The sum of \$1,000.00 be accepted from Hapgood Wright, under the conditions specified by him, that the money be placed at interest for 50 years, and at the end of that time the interest to be spent by the City Council (by a two-third vote) for the benefit of the City or its citizens, but the original \$1,000.00 to be always kept on deposit and the interest only to be spent by the City Council at the end of each 50 years."

	Cash	Total
On hand Jan. 1, 1918	\$5,443.90	\$5,443.90
<i>Received during 1918</i>		
CASH—Interest on bank deposits	247.68	\$5,691.58
	<hr/>	<hr/>
On hand Jan. 1, 1919		\$5,691.58
		<hr/>
Increase during the year		\$ 247.68
		<hr/>

Securities Belonging to this Fund

Cash in Lowell Institution for Savings	\$1,141.53	
Cash in City Institution for Savings	4,550.05	
	<hr/>	\$5,691.58
		<hr/>

SINKING FUNDS CLASSIFIED

Full value of all Sinking Funds Jan. 1, 1919	\$1,597,655.31	
Full value of all Sinking Funds Jan. 1, 1918	1,506,685.50	
Increase during year		\$90,969.81
		<hr/>
Value of Water Loan Sinking Fund Jan. 1, 1919	\$910,394.56	
Value of Water Loan Sinking Fund Jan. 1, 1918	860,752.52	
	<hr/>	
Increase during the year		\$49,642.04
		<hr/>
Value of all other Sinking Funds Jan. 1, 1919	\$687,260.75	
Value of all other Sinking Funds Jan. 1, 1918	645,932.98	
	<hr/>	
Increase during the year		\$41,327.77
		<hr/>
Total increase as above		\$90,969.81
		<hr/>
Value of the Hapgood Wright Centennial Trust Fund, Jan. 1, 1919		\$5,691.58
Value of the Hapgood Wright Centennial Trust Fund, Jan. 1, 1918		5,443.90
		<hr/>
Increase during the year		\$ 247.68
		<hr/>

WATER LOAN SINKING FUND

	Securities	Cash	Total
On hand Jan. 1, 1918	\$829,621.30	\$31,131.22	\$860,752.52
Received during 1918:			
Cash—Annual Appropriation		16,000.00	
Income on Investment		34,178.47	
Income on Bank Deposits		236.01	
Securities Sold or Matured		27,171.30	
SECURITIES—Bought during 1918 ..	106,000.00		
	<hr/>	<hr/>	
	\$935,621.30	\$108,717.00	
Paid during 1918:			
SECURITIES—Matured and Paid	27,171.30		
CASH—For Securities Purchased		106,772.44	
	<hr/>	<hr/>	
On hand Dec. 31, 1918	\$908,450.00	1,944.56	\$910,394.56
Increase during 1918			<hr/>
			\$ 49,642.04

Securities Belonging to This Fund**Coupon Bonds**

26	American Tel. & Tel. Co.	4%	\$26,000.00
10	Baltimore & Ohio Railroad	3½	10,000.00
10	Boston & Lowell Railroad	3½	10,000.00
8	Chicago, Burlington & Quincy Railroad	4	8,000.00
4	Chicago, Milwaukee & St. Paul Railroad	5	4,000.00
4	Chicago, Milwaukee & St. Paul Railroad	6	4,000.00
10	Chicago, Milwaukee & St. Paul Railroad	6	10,000.00
5	City of Bath	4	5,000.00
5	City of Bridgeport	4¼	5,000.00
15	City of Chicago	4	15,000.00
5	City of Duluth	4	5,000.00
5	City of Milwaukee	4	5,000.00
3	City of Minneapolis	4	3,000.00
18	City of Minneapolis	4¾	18,000.00
4	City of Newton	3½	4,000.00
1	City of Waltham	3½	1,000.00
14	City of Waterville	4	14,000.00
5	City of Wilkesbarre	4	5,000.00
5	City of Milwaukee	4½	5,000.00
20	Illinois Central Railroad	3½	20,000.00
6	Milwaukee Lake Shore & Western Railroad	6	6,000.00
9	New York, Lackawanna & Western Railroad	6	9,000.00

Water Loan Sinking Fund—Continued

60	New York, New Haven & Hartford Railroad	4%	\$60,000.00
12	Town of Athol	4	12,000.00
4	Town of Canton, Mass.	4	4,000.00
4	Boston & Maine Railroad	4	4,000.00
5	City of Hamilton	5	2,500.00
2	City of South Omaha	6	1,000.00
10	Penobscot Shore Line Railroad	4	10,000.00
5	State of Minnesota	4½	5,000.00
5	State of Minnesota	4½	5,000.00
6	State of Minnesota	4½	6,000.00
1	Town of Milton	3½	1,000.00
5	Town of Milton	3½	5,000.00
15	Boston & Maine Railroad	4	15,000.00
5	City of Akron	5	5,000.00
5	City of Canton	5	5,000.00
2	City of Canton	5	2,000.00
3	City of Canton	5	3,000.00
3	City of Canton	5	3,000.00
2	City of Canton	5½	2,000.00
5	City of Dayton	5	5,000.00
3	City of Lawrence	4	3,000.00
4	City of Lorain	5	4,000.00
3	City of South Omaha	6	1,250.00
1	City of South Omaha	6	300.00
5	Louisville & Nashville Railroad	6	5,000.00
2	St. Johnsbury & Lake Champlain Railroad	5	2,000.00
2	Boston & Lowell Railroad	4	2,000.00
1	City of Dayton	4½	1,000.00
2	City of Flint, Mich.	4½	2,000.00
10	City of Haverhill	4	10,000.00
1	City of Lakewood, Ohio	4½	1,000.00
1	City of Lakewood, Ohio	4½	1,000.00
1	City of Lakewood, Ohio	5	388.00
1	City of Lakewood, Ohio	5	230.00
1	City of Lakewood, Ohio	5	352.00
1	City of Lima, Ohio	5	1,000.00
1	City of Lima, Ohio	5	1,000.00
1	City of Lima, Ohio	5	1,000.00
41	City of Lowell	4	41,000.00
1	City of Lowell	4	1,000.00
1	City of Quincy	3.65	1,000.00
5	City of Saginaw	4	5,000.00
3	City of Youngstown, Ohio	5	3,000.00

Water Loan Sinking Fund—Continued

12	City of Youngstown, Ohio	5%	\$ 5,930.00
5	City of Youngstown, Ohio	5	5,000.00
10	Fitchburg Railroad	3½	10,000.00
5	Rome Watertown & Ogdensburg Railroad	5	5,000.00
36	Town of Northfield	3½	18,000.00
1	Liberty Loan	4¼	10,000.00
35	Boston Elevated Railroad	4	35,000.00
12	Chicago, Burlington & Quincy Railroad	4	12,000.00
1	City of Cleveland	4½	1,000.00
4	City of Lowell	4	4,000.00
2	City of East Portland, Ore.	6	2,000.00
1	City of Saginaw	4	1,000.00
5	City of San Francisco	5	5,000.00
15	Delaware & Hudson Railroad	4	15,000.00
40	Kennebec Water District	3½	40,000.00
5	New York New Haven & Hartford Railroad	4	5,000.00
1	Town of Attleborough	3½	1,000.00
4	Town of Reading	3½	4,000.00
20	Worcester Consolidated Railroad	5	20,000.00
5	Liberty Loan	4¼	50,000.00
10	Boston Elevated Railroad	5	10,000.00
1	City of Chicopee	3½	1,000.00
10	City of Cleveland	4½	10,000.00
2	City of Cleveland	4½	2,000.00
20	City of Cleveland	5	20,000.00
5	City of Minneapolis	4	5,000.00
36	Concord & Montreal Railroad	4	36,000.00
18	Lynn & Boston Street Ry.	5	18,000.00

Registered Bonds

1	Boston & Maine Railroad	4½	10,000.00
3	City of Boston	3½	15,000.00
1	City of Boston	3½	10,000.00
1	City of Boston	3½	1,000.00
1	City of Portland, Me.	3½	4,500.00
1	City of Rochester	3½	10,000.00
1	Chicago & No. Western Railroad	4	5,000.00
2	Penobscot Shore Line Railroad	4	2,000.00
1	City of Buffalo	3½	5,000.00
1	City of Boston	4	5,000.00
10	City of Los Angeles	3¾	10,000.00
1	State of Massachusetts	3½	20,000.00

Water Loan Sinking Fund—Continued

1 City of Cleveland	5%	\$10,000.00
4 Town of Lexington	4	4,000.00
1 City of New Bedford	3½	4,000.00
1 City of New Bedford	3½	7,000.00
		<hr/>
		\$908,450.00
Cash on deposit in Appleton National Bank		1,944.56
		<hr/>
		\$910,394.56

NEW SCHOOL HOUSES SINKING FUND

	Securities	Cash	Total
On hand Jan. 1, 1918	\$116,000.00	\$ 5,452.42	\$121,452.42
Received during 1918:			
CASH—Annual Appropriation		4,000.00	
Income on Investments		4,806.25	
Income on Bank Deposits		55.06	
Securities Sold or Matured		5,000.00	
SECURITIES—Bought during 1918 ..	19,000.00		
		<hr/>	
		\$135,000.00	\$19,313.73
Paid during 1918:			
SECURITIES—Matured and Paid ..	5,000.00		
CASH—For Securities purchased		19,172.58	
		<hr/>	
On hand Dec. 31, 1918	\$130,000.00	\$ 141.15	\$130,141.15
		<hr/>	
Increase during year 1918			\$ 8,688.73

Securities Belonging to This Fund**Coupon Bonds**

3 American Tel. & Tel. Co.	4%	\$ 3,000.00
4 Chicago, Burlington & Quincy Railroad	4	4,000.00
5 Chicago, Milwaukee & St. Paul Railroad	5	5,000.00
3 City of Chicago	4	3,000.00
1 City of Chicago	4	1,000.00
5 City of Duluth	4	5,000.00
7 City of Ft. Wayne	3½	7,000.00
8 City of Indianapolis	4	8,000.00
3 City of Milwaukee	4½	3,000.00
1 City of Minneapolis	4	1,000.00
2 Minneapolis Union Railroad	6	2,000.00
1 New York, Lack. & Western Railroad	6	1,000.00

New School Houses Sinking Fund—Continued

4	Boston & Maine Railroad	4%	\$ 4,000.00
5	City of Akron	5 $\frac{1}{4}$	5,000.00
7	City of Lawrence	4	7,000.00
2	City of Lorain	5	2,000.00
1	City of Beverly	4 $\frac{1}{2}$	1,000.00
3	City of Decatur, Ill.	4	3,000.00
1	City of Lowell	4	1,000.00
3	Chicago, Burlington & Quincy Railroad	4	3,000.00
1	City of Everett	4	1,000.00
1	City of Everett	4	1,000.00
14	City of Lowell	4	14,000.00
5	New York, New Haven & Hartford Railroad	4	5,000.00
5	Boston Elevated Railroad	5	5,000.00
2	City of Minneapolis	4	2,000.00
3	County of Hillsborough, N. H.	4	3,000.00
1	County of Middlesex	4	1,000.00
8	Concord & Montreal Railroad	4	8,000.00
1	Town of Winchester	4	1,000.00

Registered Bonds

1	City of Minneapolis	3 $\frac{1}{2}$	10,000.00
1	Chicago & No. Western Railroad	4	5,000.00
5	City of Albany	4 $\frac{1}{2}$	5,000.00

		\$130,000.00
	Cash on deposit in Appleton National Bank	141.15
		\$130,141.15

LOWELL HIGH SCHOOL SINKING FUND

	Securities	Cash	Total
On hand Jan. 1, 1918	\$129,000.00	\$ 3,846.32	\$132,846.32
Received during 1918:			
CASH—Annual Appropriation		3,000.00	
Income on Investments		5,593.75	
Income on Bank Deposits ..		27.81	
Securities Sold or Matured ..		7,000.00	
SECURITIES—Bought during 1918 ..	18,500.00		
	<hr/>	<hr/>	
	\$147,500.00	\$19,467.88	
Paid during 1918:			
SECURITIES—Matured and Paid	7,000.00		
CASH—For Securities purchased		18,492.31	
	<hr/>	<hr/>	
On hand Dec. 31, 1918	\$140,500.00	\$ 975.57	141,475.57
Increase during year 1918			<hr/>
			\$ 8,629.25

Securities Belonging to This Fund**Coupon Bonds**

3	American Tel. & Tel. Co.	4%	\$ 3,000.00
5	Chicago, Burlington & Quincy Railroad	4	5,000.00
5	Chicago, Milwaukee & St. Paul Railroad	6	5,000.00
3	Chicago, Milwaukee & St. Paul Railroad	5	3,000.00
8	Chicago, Milwaukee & St. Paul Railroad	5	8,000.00
3	City of Fort Wayne	3½	3,000.00
5	City of Indianapolis	4	5,000.00
5	City of Milwaukee	4½	5,000.00
5	City of Milwaukee	4½	5,000.00
3	City of Seattle	5	1,500.00
3	New York, Lackawanna & Western Railroad	6	3,000.00
12	New York, New Haven & Hartford Railroad	4	12,000.00
1	Boston & Maine Railroad	4	1,000.00
5	City of Akron	5¼	5,000.00
1	City of Salem	3½	1,000.00
1	City of Salem	3½	1,000.00
1	City of Dayton	5	1,000.00
11	City of Lowell	4	11,000.00
4	City of Dayton	4½	4,000.00
2	City of Saginaw	4	2,000.00
5	Chicago, Burlington & Quincy Railroad	4	5,000.00
27	City of Lowell	4	27,000.00

Lowell High School Sinking Fund—Continued

1	City of St. Paul	4%	\$ 1,000.00
10	New York, New Haven & Hartford Railroad	4	10,000.00
1	Town of Attleborough	3½	1,000.00
2	City of Dayton	5	2,000.00
3	City of Haverhill	4	3,000.00

Registered Bonds

1	City of Buffalo	3½	1,000.00
1	Chicago & No. Western Railroad	4	5,000.00
1	City of New Bedford	3½	1,000.00

\$140,500.00

•	Cash on deposit in Appleton Bank	975.57
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\$141,475.57

CITY HALL AND MEMORIAL BUILDING SINKING FUND

	Securities	Cash	Total
On hand Jan. 1, 1918	\$381,900.00	\$ 9,734.24	\$391,634.24
Received during 1918:			
CASH—Annual Appropriation		7,500.00	
Income on Investments		16,420.75	
Income on Bank Deposits ..		63.08	
Securities Sold or Matured ..		5,200.00	
SECURITIES—Bought during 1918 ..	34,000.00		
	<hr/>	<hr/>	
	\$415,900.00	\$38,918.07	
Paid during 1918:			
SECURITIES—Matured and Paid ..	5,200.00		
CASH—For Securities purchased ..		33,974.04	
	<hr/>	<hr/>	
On hand Dec. 31, 1918	\$410,700.00	\$ 4,944.03	\$415,644.03
Increase during year 1918			<hr/>
			\$ 24,009.79

Securities Belonging to This Fund**Coupon Bonds**

8	American Tel. & Tel. Co.	4%	\$ 8,000.00
8	Chicago, Burlington & Quincy Railroad	4	8,000.00
3	Chicago, Milwaukee & St. Paul Railroad	6	3,000.00
4	Chicago, Milwaukee & St. Paul Railroad	5	4,000.00
25	Chicago, Milwaukee & St. Paul Railroad	5	25,000.00
2	City of Chicago	4	2,000.00
3	City of Chicago	4	3,000.00
1	City of Danbury	4	1,000.00
1	City of Everett	4	1,000.00
5	City of Fort Wayne	3½	5,000.00
7	City of Indianapolis	4	7,000.00
1	City of Middletown, Conn.	3½	1,000.00
5	City of Milwaukee	4½	5,000.00
2	City of Minneapolis	4¾	2,000.00
10	City of Meriden	4¼	10,000.00
10	City of Waterbury	4	5,000.00
5	Illinois Central Railroad	3½	5,000.00
3	Minneapolis Union Railroad	6	3,000.00
7	New York, Lackawanna & Western Railroad ..	6	7,000.00
3	New York, New Haven & Hartford Railroad ..	4	3,000.00
1	Town of Peabody	4	1,000.00
6	Town of Warwick, R. I.	4½	6,000.00
10	City of Augusta (Water Dist.)	4	10,000.00

City Hall and Memorial Building Sinking Fund—Continued

2	City of Hamilton	5%	\$ 1,000.00
1	City of Toledo	4½	1,000.00
5	Town of Methuen	4	2,500.00
10	Boston & Maine Railroad	4	10,000.00
3	City of Canton, Ohio	5	3,000.00
2	City of Detroit	4	2,000.00
1	City of Lorain	5	1,000.00
3	City of Trenton	4½	3,000.00
9	Louisville & Nashville Railroad	6	9,000.00
1	City of Lowell	4	1,000.00
1	City of Lowell	4	1,000.00
5	City of Minneapolis	4	5,000.00
2	City of Newton	4	2,000.00
2	City of Quincy	4	2,000.00
3	City of Saginaw	4	3,000.00
9	Town of Arlington	4	9,000.00
10	Chicago, Burlington & Quincy Railroad	4	10,000.00
4	City of Akron	5	4,000.00
10	City of East Portland, Ore.	6	10,000.00
64	City of Lowell	4	64,000.00
6	City of Malden	4	6,000.00
5	City of St. Paul	4	5,000.00
5	City of San Francisco	5	5,000.00
10	Delaware & Hudson Railroad	4	10,000.00
10	Fitchburg Railroad	4	10,000.00
5	New York, New Haven & Hartford Railroad	4	5,000.00
2	Town of Attleborough	3½	2,000.00
5	Worcester Consolidated Railroad	5	5,000.00
5	City of Brockton	4	5,000.00
3	City of Chicopee	3½	3,000.00
2	City of Hamilton	4½	1,000.00
15	City of Minneapolis	4	15,000.00
1	Concord & Montreal Railroad	4	1,000.00
10	Lynn & Boston St. Ry.	5	10,000.00
3	Town of Stoughton	4	3,000.00
5	Town of Stoughton	4	5,000.00

Registered Bonds

1	City of Boston	3½	5,000.00
1	City of Boston	3½	6,000.00
1	City of Providence	4	10,000.00
1	City of Providence	4	1,000.00
1	Town of Brookline	3½	3,000.00
1	Chicago & No. Western Railroad	4	10,000.00

City Hall and Memorial Building Sinking Fund—Continued

1	Commonwealth of Massachusetts	3½%	\$ 5,000.00
1	City of Brockton	4	1,000.00
1	City of Buffalo	4½	10,000.00
1	City of Lowell, Serial Note	4¼	200.00
			<hr/>
			\$410,700.00
	Cash on deposit in Appleton National Bank		4,944.03
			<hr/>
			\$415,644.03
			<hr/>

Bonds Bought Since January 1, 1919

1	City of Boston, Reg. 4 Oct. 1920	\$ 3,000.00
1	City of New Bedford, Reg. 4 Mar. 1921	5,000.00
1	City of New Bedford, Reg. 4 Mar. 1921	7,000.00

WATER LOAN

2	City of Beverly, Coup. 4, May 1920	\$ 2,000.00
5	Bay City, Mich., Coup. 5, Sept. 1920	5,000.00

JOHN DAVIS LIBRARY FUND

	Cash	Securities	Total
On hand at beginning of year ..	\$486.02	\$100,544.15	\$101,030.17
On hand at end of year	199.45	100,527.98	100,727.43
	<hr/>	<hr/>	<hr/>
Decrease in Funds	\$286.57	\$ 16.17	\$ 302.74

Receipts

Mortgage payment	\$ 25.00
Income on securities	3,035.00
Interest on deposits	11.07
National Bank Tax	82.71

Total receipts	\$3,153.78
Cash Jan. 1, 1918	486.02
	<hr/>
	\$3,639.80
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Payments

To Library Trustees	\$3,440.35
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Total payments	\$3,440.35
Cash Dec. 31, 1918	199.45
	<hr/>
	\$3,639.80
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The Securities

Registered Bonds	\$ 84,000.00
Railroad Stocks	8,200.00
Industrial Stocks	2,100.00
Bank Stocks	3,500.00
Mortgage Notes	2,525.00
Central Savings Bank Book No. 35073	202.98
Cash in Appleton National Bank	199.45
	<hr/>
Total cash and securities	\$100,727.43

ACCOUNT OF THE CITY TREASURER AND COLLECTOR OF TAXES FOR THE YEAR 1918

Lowell, Mass., Jan. 1, 1919.

To the Municipal Council:

Gentlemen:—I have the honor to submit the following report of the Receipts and Expenditures of the City of Lowell for the financial year 1918:

Monthly Receipts As Follows:

January	\$ 126,097.76	
February	461,593.12	
March	115,442.82	
April	783,591.16	
May	80,595.67	
June	503,523.76	
July	126,410.34	
August	676,882.43	
September	72,047.03	
October	1,741,163.94	
November	548,251.97	
December	330,718.84	
	<hr/>	\$5,566,318.84
Cash Balance Jan. 1, 1918		389,792.57
		<hr/>
		\$5,956,111.41

Monthly Payments As Follows:

January	\$333,899.50	
February	285,453.41	
March	267,361.85	
April	638,440.13	
May	329,775.17	
June	269,545.05	
July	336,466.39	
August	483,588.42	
September	224,152.65	
October	951,329.80	
November	845,022.56	
December	750,702.37	
	<hr/>	\$5,715,737.30
Cash balance Dec. 31, 1918		240,374.11
		<hr/>
		\$5,956,111.41

Respectfully submitted,

FRED H. ROURKE,
City Treasurer and Collector of Taxes.

STATEMENT OF THE CITY TREASURER RELATING TO SPECIAL FUNDS FOR CARE OF PUBLIC BURIAL GROUNDS

Lowell, Mass., Jan. 1, 1919.

To the Municipal Council:

Gentlemen:—I have the honor to submit the following statement of Special Funds in my hands, deposited for perpetual care of Lots in the Public Burial Grounds of the City of Lowell.

On hand Jan. 1, 1918 \$105,765.00

Received during the year from:

Charles A. Wotton	\$100.00
William D. Moffatt	200.00
James R. Trevors	100.00
Anna G. Norris	100.00
John N. Palm	100.00
Percy W. Senter	100.00
Thomas Duckworth (Kate E. Battles)	25.00
Angelos Cowlis	50.00
David D. Coates	100.00
Benjamin A. Smith	100.00
Mrs. Ida A. Railey, Ex's.	100.00
Addie H. Jones Roberts	100.00
Henry Boynton	100.00
Hanna Wickstrom	100.00
Geo. R. Martin	100.00
Mary A. Wilson	100.00
Ralph Frost, Jr.	100.00
Jessie C. White, Admx.	100.00
William A. Arnold	100.00
Addie F. Prescott	50.00
Elmer L. Bowen, Admr.	100.00
Albert S. Taylor, Executor	100.00
Edward E. Farris, Exr.	100.00
Martin C. Lurvey	100.00
Mary H. Carr	100.00
Mrs. Mary Carlson	50.00
Caroline L. Ward	100.00
Frank J. Pike	100.00
Lucy N. Teel	100.00
Mrs. M. F. Deans	100.00
J. F. O'Donnell & Sons (Sarah E. Tolman)	25.00
M. H. McDonough & Sons (James Bean)	25.00
Rev. N. W. Matthews	100.00
Franklin E. Johnson, Exr.	50.00
William M. Thompson	100.00

AUDITOR'S REPORT

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Katherine M. Lawrence	100.00
O. A. Berntson	100.00
Isabel F. Caddell	100.00
Eliza A. Ashton	100.00
Volney Sprague	100.00
Mary F. Saxe	100.00
Georgiana A. Keen	100.00
Miss Mary E. Pead	100.00
Lena Foster, Admx.	100.00
Mrs. Fanny Mann	100.00
Eliza L. Maynard	50.00
Robert Johnson	100.00
David E. Cornock	100.00
Ellen Carmon	100.00
Dura S. Stevens	100.00
William H. Wilson	100.00
Thomas Sutherland, Admr.	100.00
Miss C. E. Cushman	50.00
John Haslam	200.00
William A. Dolan	25.00
Bella Meara	50.00
John Anderson	50.00
Qua, Howard & Rogers (M. W. Costello)	200.00
Cora B. Tufts	100.00
Achsah A. Eaton	100.00
Andrew Adams	100.00
Annie E. Hill	100.00
Martha Blakeley	100.00
Ellison Hill	100.00
Esther H. Miller	100.00
Miss Augusta V. Eaton	100.00
William A. Cornock	100.00
Mary E. Morris	100.00
Theodore von Rosenvinge	25.00
Ralph T. Leith	100.00
T. K. Hall	100.00
Marion Rosander	50.00
Mrs. Annie Spear	50.00
William N. Rushworth	100.00
R. P. Huntoon	100.00
Sarah Lilian Hoyle	100.00
George W. Enwright	100.00
Carlos E. Bohonan	100.00
William Z. Hibbert	100.00
George W. Healey (Louis Angevine)	25.00
Frank C. Douglass	100.00

AUDITOR'S REPORT

Thomas Duckworth (Manl Tizaian)	25.00	
Thomas Duckworth (Thomas Carter)	25.00	
Annie M. Stone	100.00	
Mrs. Margaret J. Fitzgerald	25.00	
Lora N. Emerson, Admr.	100.00	
Mrs. Emily B. Pinkham	100.00	
Ferne E. Richardson	100.00	
Georgianna Mitchell	100.00	
John N. Short	100.00	
Adelaide W. Clark	100.00	
Mary T. Gordon	100.00	
Mrs. Joseph Weimann	100.00	
Loring V. Estes	100.00	
Samuel Patenaude	100.00	
William Ashworth	100.00	
Annie Lamberton	100.00	
Charles H. Hanson	200.00	
John A. Anderson	100.00	
Clara M. Day, Admx.	100.00	
		<hr/> \$ 9,225.00
		<hr/>
		\$114,990.00
		<hr/>

The amounts are invested as follows :

Lowell Five Cents Savings Bank	\$ 14,075.00
The Central Savings Bank	14,400.00
Merrimack River Savings Bank	15,350.00
Mechanics Savings Bank	14,100.00
City Institution for Savings	12,700.00
Lowell Institution for Savings	14,325.00
Washington Savings Institution	13,600.00
Middlesex Safe Deposit & Trust Co.	16,440.00
	<hr/>
	\$114,990.00

Respectfully submitted,

FRED H. ROURKE,

City Treasurer.

GENERAL INFORMATION

CITY AUDITOR'S REPORT OF FUNDS HELD AND
USED BY CITY

PROPERTY OWNED BY CITY

TABLES

LOANS

NEW HIGH SCHOOL

PAWTUCKET BRIDGE

CARDINAL O'CONNELL PARKWAY

ISOLATION HOSPITAL

TOTAL VALUATION AND CITY DEBT, 1918

Real Estate and Personal Property Owned by the City

	Personal	Real	Total
Public Safety	\$ 82,500.00	\$ 364,200.00	\$ 446,700.00
Finance	8,600.00		8,600.00
Public Property	39,300.00	1,648,675.00	1,687,975.00
Streets and Highways	117,000.00	45,000.00	162,000.00
Water and Fire	1,676,924.00	874,500.00	2,551,424.00
Schools	54,300.00	2,504,204.00	2,558,500.00
Cemetery	10,000.00	43,000.00	53,000.00
Park	10,000.00	743,475.00	753,475.00
Unclassified		10,525.00	10,525.00
			<hr/>
Total Valuation			\$8,232,199.00
Gross City Debt			4,744,496.30
Excess in Valuation of all City Property over the Gross			
Debt of City			\$3,487,702.70
			<hr/>

PUBLIC SAFETY

Mayor	\$ 800.00
Health	15,000.00
Law	500.00
Police	35,000.00
State Aid	200.00
Charity Office	4,000.00

CITY HOSPITAL

	Bldgs. Value	Area	Land Value	Total Value
Chelmsford St. Hospital Buildings	\$176,100.00	45.73 acres	\$22,300.00	\$198,400.00
Land Chelmsford St.		139,530 sq. ft.	2,800.00	2,800.00
Land Chelmsford St.		176,300 "	3,500.00	3,500.00
Land Chelmsford St.		10,305 acres	3,100.00	3,100.00
Land in Town of Chelmsford		28.08 "	8,400.00	8,400.00
Equipment	\$176,100.00		\$40,100.00	\$216,200.00
Contagious Hospital				\$ 27,000.00
				\$148,000.00

FINANCE

Auditor — Office	\$	500.00
Assessors "		500.00
Treasurer "		500.00
City Clerk "		500.00
Elections "		5,000.00
Registrars "		100.00
Supply "		500.00

STREETS AND HIGHWAYS

Streets	\$68,000.00
Sprinkling Streets	12,500.00
Sewers	21,000.00
Lighting Streets	10,000.00
Engineer	5,500.00
City Stable	40,000.00
Sprinkler Sheds	5,000.00

MISCELLANEOUS REAL ESTATE

	Area		Valuation
Tenth Street	40,260	sq. ft.	\$ 800.00
Tenth Street	175,985	"	3,500.00
Harris Land	28	acres	600.00
Parker Land	20	"	1,400.00
Hildreth Land	17	"	500.00
Meadow Land	5	"	275.00
Swan Land	5	"	200.00
S. S. Rogers Street	2.69	"	300.00
N. S. First Street	57,768	sq. ft.	1,500.00
Spruce Street	17,457	"	150.00
W. S. Billerica Road	145,513	"	400.00
Clark Road	3	acres	900.00
			<hr/>
			\$10,525.00
			<hr/>

PUBLIC PROPERTY AND LICENSES DEPARTMENT

Real Estate

	Buildings Value	Area	Land Value	Total Value
City Hall	\$410,000.00			
Memorial Building, Merrimack St., Colburn St., Moody St. and Worthen St. Police Station, Market St.	200,000.00 41,400.00 500.00	61,280 sq. ft.	\$122,550.00	\$732,550.00
City Scales	2,500.00	16,345	57,200.00	} 106,050.00
Public Landing and Police Stable		4,537	2,250.00	
Land in Rear Market St.		4,382	2,200.00	
Land in Rear Market St.				
Wooden Building (polling booth)	300.00			
Wooden Building (Old Fire Station)	800.00			
Land, Fletcher, Willie and Cross Sts.				
Comfort Station, Paige St.	25,000.00	5,150	2,050.00	3,150.00
Carriage Sheds	4,000.00	area in street		25,900.00
2½ Story Brick Building Office, Carpenter and Blacksmith Shop	8,000.00			
Land, Fletcher, Broadway and Landgrange Sts.		72,500 sq. ft.	25,400.00	37,400.00
Brick Stable	35,000.00			
Carriage Shed (brick and wood)	3,000.00			
Shed (wood)	2,500.00			

PUBLIC PROPERTY AND LICENSES DEPARTMENT, Real Estate—Continued

	Buildings Value	Area	Land Value	Total Value
2 Story Building (Sewer Dept.) wood	\$ 2,500.00			
Shed	500.00			
Carpenter and 3 Story Brick Building	18,000.00			
2 Story Wooden Building, carpenter storage	6,000.00			
Auto and Carriage Sheds, brick and wood	8,000.00			
Sheds	200.00			
Land, Fletcher, Cross and Broadway				
Rifle Range, Dracut	16,000.00	80,980	\$ 28,350.00	\$ 104,050.00
Magazine Building rear of Chelmsford Street	In ground	1.65	2,700.00	18,700.00
			400.00	400.00
	\$829,200.00		\$243,100.00	\$1,072,300.00

Buildings Department	\$25,000.00
License Commission	800.00
Moths	2,000.00
Messengers	4,400.00
Weigher	500.00
Sealer	1,200.00
Wires	400.00

FIRE DEPARTMENT—PERSONAL PROPERTY

	Valuation
Chief's Office	\$ 7,619.32
Repair Shop	579.00
Engine Co. No. 1, Gorham Street	8 ,767.13
“ No. 2, Branch Street	9,389.00
“ No. 3, Palmer Street	7,773.30
“ No. 4, High Street	5,172.50
“ No. 5, Mammoth Road	2,950.00
“ No. 6, Fletcher Street	6,592.60
Hose Co. No. 7, Central Street	2,566.95
“ No. 8, Merrimack Street	2,000.85
“ No. 9, Lincoln Street	2,539.14
“ No. 10, Fourth Street	3,955.30
“ No. 11, Lawrence Street	1,966.60
“ No. 12, West Sixth Street	2,443.65
Hook & Ladder No. 1, Lawrence Street	2,429.25
“ No. 2, Westford Street	3,517.91
“ No. 3, Palmer Street	5,169.55
“ No. 4, West Sixth Street	6,559.78
Protective No. 1, Warren Street	4,327.60
Fire Alarm Telegraph	47,327.00
 Total Fire Department Personal	 \$133,647.33

FIRE DEPARTMENT

Real Estate

	Value Buildings	Area feet	Value Land	Total Value
Engine House, Gorham St.	\$ 26,000.00	5,292	\$ 1,300.00	\$ 27,300.00
Engine " Branch St.	18,000.00	8,829	3,500.00	21,500.00
Central Fire Station, Palmer St.	60,000.00	2,248 } 7,326 }	6,750.00 } 29,300.00 }	96,050.00
Engine House, High St.	25,000.00	5,565	1,950.00	26,950.00
Engine " Mammoth Road	14,500.00	5,341	850.00	15,350.00
Engine " Fletcher St.	20,000.00	123,126 } 18,985 }	24,600.00 } 3,700.00 }	48,300.00
Engine " Central St.	10,500.00	3,500	2,100.00	12,600.00
Engine " Merrimack St.	23,000.00	3,060	5,800.00	28,800.00
Engine " Lincoln St.	6,000.00	1,930	150.00	6,150.00
Engine " Fourth St.	16,000.00	6,993	2,500.00	18,500.00
Engine " Lawrence St.	25,000.00	8,058	1,200.00	26,200.00
Engine " West Sixth St.	38,000.00	9,390	650.00	38,650.00
Engine " Westford St.	18,000.00	4,610	1,400.00	19,400.00
Engine " Warren St.	11,000.00	1,645	1,650.00	12,650.00
	\$311,000.00		\$87,400.00	\$398,400.00

WATER WORKS DEPARTMENT

Real Estate

	Value Buildings	Area Right of way	Value Land	Total Value
Terminal Chamber (brick) Conduit St.	\$ 4,000.00			\$ 4,000.00
2 Small Brick Buildings, manhole and blow-off, Conduit St.	1,000.00	"		1,000.00
Sarah Ave. and Moody St.		28,072 sq. ft.	\$ 2,800.00	2,800.00
Brick Manhole Structure, White St.	1,000.00	"	300.00	1,300.00
Brick Manhole Structure, Moody St., Gershorn and Gardner Aves.	2,000.00	"	2,600.00	4,600.00
Fels Park		27,163 "	550.00	550.00
Inlet Chamber (brick) Varnum Ave.	10,000.00	"	1,550.00	11,550.00
Filter Basin between Varnum Ave. and River	8,000.00	166,320 "	5,000.00	13,000.00
Upper Pumping Station, Boulevard	2,000.00			
Dwelling House, Boulevard	1,500.00			
Dwelling House, Boulevard	800.00	55.7878 acres	22,300.00	26,600.00
Cushing Farm Buildings, Varnum Ave.	1,200.00	33 "	6,600.00	7,800.00
Boulevard and Boulevard St.		11 "	4,400.00	4,400.00
Pumping Station, West Sixth St.	100,000.00			
Stable and Sheds	15,000.00			
Store House and Sheds, West Sixth St., Hampshire St. and Jewett St.	2,000.00	51.101 "	13,000.00	130,000.00
House No. 40 West Sixth St.	1,600.00	8,133 sq. ft.	2,450.00	4,050.00

WATER WORKS DEPARTMENT, Real Estate—Continued

	Value Buildings	Area	sq. ft.	Value Land	Total Value
High Service Reservoir, Mt. Pleasant St.	\$ 15,000.00	54,730		\$ 1,100.00	\$ 16,750.00
In Town of Dracut		32,470	"	650.00	
Pumping Station and Chimney, Plain and Chelmsford Sts.	3,000.00	1,684,930	"	25,250.00	
Plain and Chelmsford Sts.		115,640	"	600.00	32,700.00
In Town of Chelmsford		1,531,109	"	3,850.00	
Low Service Reservoir (new)	75,000.00				
Low Service Reservoir	70,000.00				
Dwelling House	1,000.00				
Gate House, Beacon St.	10,000.00	651,600	"	32,600.00	188,600.00
Lower Pumping Station	25,000.00				
Wooden Building, Boulevard	500.00	2,250 acres		900.00	26,400.00
	\$349,600.00			\$126,500.00	\$476,100.00

Personal Property

Pumps, Engines, Machinery, Pipes, Conduits	
Mains and other Personal Property	\$1,553,276.67

SCHOOL DEPARTMENT

Real Estate

	Value Buildings	Area	sq. ft.	Value Land	Total Value
High School, Kirk and Anne Sts.	\$200,000.00	31,194		\$32,000.00	\$232,000.00
High School Annex, John and Paige Sts.	79,000.00	16,737	"	25,100.00	104,100.00
High School, (overflow) Kirk St.	10,000.00	22,816	"	18,000.00	28,000.00
Bartlett School (new) Wannalancit St.	110,000.00	68,418	"	10,250.00	120,250.00
Bartlett School (old) Clark St.	17,000.00	10,000	"	3,000.00	20,000.00
Butler School, Gorham St.	65,000.00	25,620	"	5,100.00	70,100.00
Colburn School, Lawrence St.	20,000.00	17,557	"	3,500.00	23,500.00
Edson School, Highland and South Sts.	20,000.00	Ld. taken with So. Common			20,000.00
Franklin School, Branch St.	15,000.00	20,011	sq. ft.	14,000.00	29,000.00
Green School, Merrimack St.	60,000.00	19,562	"	47,900.00	107,900.00
Greenhalge School, Ennell St.	125,000.00	100,000	"	7,000.00	132,000.00
Highland School, Pine St.	65,000.00	53,924	"	8,000.00	73,000.00
Lincoln School, Chelmsford St.	100,000.00	44,451	"	4,450.00	104,450.00
Mann School, Broadway (brick)	8,000.00				
Wooden Building, Broadway	4,000.00	15,532	"	11,700.00	23,700.00
Moody School (new) Rogers St.	75,000.00	51,226	"	10,250.00	85,250.00
Moody School (old) East Merrimack and High Sts.	18,000.00	9,500	"	5,700.00	23,700.00
Pawtucket School, Mammoth Road	47,000.00	36,160	"	5,800.00	52,800.00
Riverside School, Woburn St.	25,000.00	33,900	"	1,350.00	} 26,600.00
		3,550	"	150.00	
		11,724	"	100.00	
Varnum School, Myrtle St.	100,000.00	47,625	"	10,950.00	110,950.00
Washington School, Lang St.	90,000.00	72,240	"	2,890.00	92,890.00
Agawam School, Agawam St. (Primary)	8,000.00	13,184	"	1,600.00	9,600.00
Ames St. Primary	12,000.00	8,539	"	2,500.00	14,500.00

SCHOOL DEPARTMENT, Real Estate—Continued

	Value Buildings	Area	sq. ft.	Value Land	Total Value
Billings St. Primary	\$15,000.00	20,000		\$1,000.00	\$ 16,000.00
Central St.	10,000.00	13,693	"	4,100.00	14,100.00
Cabot St.	20,000.00	9,625	"	5,300.00	25,300.00
Carter St.	50,000.00	18,908	"	2,650.00	52,650.00
Cheever St.	8,000.00	10,000	"	4,000.00	12,000.00
Chapel St.	4,000.00	Taken with	Central St. Primary		4,000.00
Charles St.	12,000.00	11,100	sq. ft	4,450.00	16,450.00
Cottage St.	5,000.00	5,260	"	1,600.00	6,600.00
Colburn St.	22,000.00	9,857	"	3,450.00	25,450.00
Cross St.	22,000.00	8,048	"	2,000.00	24,000.00
Dover St.	8,500.00	17,927	"	4,500.00	13,000.00
Favor St.	23,000.00	8,500	"	5,100.00	28,100.00
Fayette St.	2,000.00	7,428	"	2,600.00	4,600.00
Grand St.	3,000.00	4,255	"	1,300.00	4,300.00
High St.	8,000.00	9,220	"	3,700.00	11,700.00
Howard St.	3,500.00	6,944	"	1,400.00	4,900.00
Kirk St.	12,000.00	6,120	"	6,100.00	18,100.00
Lakeview Ave.	7,500.00	10,232	"	2,000.00	9,500.00
Lexington Ave.	7,000.00	12,000	"	350.00	7,350.00
London St.	4,000.00	10,065	"	700.00	4,700.00
Lyon	18,000.00	10,730	"	2,700.00	20,700.00
House 16 Lyon and School Building	2,500.00	6,000	"	1,000.00	3,500.00
Mammoth Road Kindergarten	2,000.00	3,507	"	450.00	2,450.00
Middlesex Village Primary	16,000.00	19,120	"	750.00	16,750.00
Moody St. Primary	18,000.00	30,400	"	1,200.00	19,200.00
Morrill School, Common St.	21,000.00	9,040	"	3,150.00	24,150.00

SCHOOL DEPARTMENT, Real Estate—Continued

	Value Buildings	Area	sq. ft.	Value Land	Total Value
Laura E. Lee School	\$ 20,500.00	16,239		\$ 2,450.00	\$ 22,950.00
Powell St. Primary	6,500.00	11,367	"	1,350.00	7,850.00
Old Middlesex Village primary (unused)					
Hadley St.	1,000.00	6,444	"	200.00	1,200.00
Pond St. Primary	7,000.00	9,880	"	3,950.00	10,950.00
Pine St.	18,000.00	26,603	"	3,200.00	21,200.00
School St. (unused) Primary	4,500.00	8,869	"	2,650.00	7,150.00
Sycamore St. Primary	12,000.00	19,046	"	550.00	12,550.00
Tenth St. Primary	8,900.00	10,730	"	2,150.00	11,050.00
Weed St. Primary	10,000.00	18,903	"	1,900.00	11,900.00
West London St. Annex Primary	2,000.00	15,211	"	750.00	2,750.00
West Sixth St. Primary	7,000.00	12,913	"	1,900.00	8,900.00
Worthen St. Primary	20,000.00	11,044	"	8,300.00	28,300.00
High School Land	\$1,714,400.00			\$326,190.00	\$2,040,590.00
Greenhalge School					227,614.00
					136,000.00
					\$2,404,204.00

Personal Property

Furniture in Schools, etc. \$54,300.00
Determined on factor basis of a certain valuation per room.

PARK DEPARTMENT Real Estate

	Bldg. Value	Acre	Feet	Land Value	Total Value
Belvidere Park			74,275	\$ 29,700.00	\$ 29,700.00
Coburn Square			10,989	1,000.00	1,000.00
Colonial Ave., Riverbank			152,400	leased	leased
Fort Hill Park		34.40		154,800.00	154,800.00
Glacial Oval			690	100.00	100.00
Harris Oval			5,000.00	500.00	500.00
Hillside Park			2,669	250.00	250.00
Hovey Square			945	150.00	150.00
Hutchinson Square			1,416	150.00	150.00
Lenox Square, Barn			7,915	800.00	1,500.00
Lincoln Square	\$700.00		600	150.00	150.00
Lacy Larcom Park			21,970	leased	leased
Mansur Square			1,743	175.00	175.00
Middlesex Square			1,514	200.00	200.00
Monument Square			3,928	15,700.00	15,700.00
M ^r . Vernon Park			25,902	4,000.00	4,000.00
North Common		11.39		125,300.00	125,300.00
Parker Spaulding Park			2,215	200.00	200.00
Pennman Square			975	250.00	250.00
Princeton Square			1,210	150.00	150.00
Shedd Park		56.00		44,800.00	44,800.00
South Common			911,653	227,900.00	227,900.00
Tyler Park			78,919	8,000.00	8,000.00
Water Works Square			2,050	500.00	500.00
Varnum Ave. Riverbank			19,860	leased	leased
Varnum Ave. Park				31,100.00	31,100.00
Fairground Park				20,000.00	20,000.00
Cardinal O'Connell Park				71,000.00	71,000.00
Varnum Park			5,882	5,900.00	5,900.00
					\$743,475.00

LAND OWNED BY THE CITY FOR BURIAL PURPOSES

Date	Location	Grantee	Area	Price	Grantor
Nov. 5, 1810	School St. ‡1	Inhabitants of Chelmsford	1 acre 23 rods	\$ 23.00	Joel Spaulding
Mar. 31, 1832	Gorham St. ‡2	136 rods in Chelmsford	4 acres 81 rods	428.00	Simon and Susanna Parker
Nov. 16, 1846	"	see below	30 acres	1,500.00	William and Hannah Spence
Nov. 25, 1893	"	Taken by resolution, Nov. 17, 1893, J. J. Pickman, Mayor	112,980 sq. ft. 13,846 "	4,236.75 692.30	Mary and John Gannon William B. Spaulding
Nov. 15, 1894	"		10,527 "	526.35	J. J. Donovan
Dec. 24, 1894	"		137,353 " or 3.1 acres	(a) 1,800.00	Sever Ohlson
		Taken by resolution, Sept. 10, 1891, Geo. W. Fifield, Mayor	44,139 sq. ft. 88,428 " 133,606 "	3,290.00 " 6,056.95	Charles D. Starbird William Manning
			266,173 " or 6.1 acres	50.00	Sever Ohlson
July 20, 1893	"	‡3 annex		5,691.60	Chas. W. and Sarah Swan
1899	"	‡3	18,972 acres	2,000.00	T. McOwen
Dec. 17, 1877	"	*	7 acres		

‡1 is the Cemetery on School Street.

‡2 is for old Cemetery on Gorham Street.

‡3 is the new Cemetery on Gorham Street, known as the Edson Cemetery.

January, 1878, \$400.00 was returned to the City on purchase of McOwen land, reducing cost to \$1,600.00.

(a) Paid on execution.

Valuation

School Street	\$ 8,000.00
Gorham Street	35,000.00
Personal Property	\$43,000.00
	\$10,000.00

LOANS NEGOTIATED BY THE CITY SINCE 1900 AND HOW EXPENDED

Year	Loans	Improvements	Current Expenses	Waterways
1900	\$288,500.00	\$191,000.00	\$ 22,500.00	\$ 75,000.00
1901	256,100.00	206,100.00	50,000.00	
1902	222,885.00	186,385.00	36,500.00	
1903	387,320.00	183,820.00	203,500.00	
1904	254,414.00	167,714.00	86,700.00	
1905	360,150.00	232,150.00	128,000.00	
1906	247,460.00	149,440.00	71,000.00	27,000.00
1907	365,500.00	229,500.00	136,000.00	
1908	304,413.00	189,413.00	115,000.00	
1909	172,900.00	172,900.00	none	
1910	241,000.00	161,000.00	20,000.00	60,000.00
1911	412,450.00	251,450.00	61,000.00	100,000.00
1912*	546,700.00	230,700.00	241,000.00*	75,000.00
1913	542,700.00	320,700.00	147,000.00	75,000.00
1914	343,500.00	253,500.00	none	90,000.00
1915	493,000.00	34,300.00	none	150,000.00
1916	647,100.00	592,100.00	none	55,000.00
1917	780,000.00	780,000.00	none†	
1918	177,000.00	147,000.00	30,000.00	

Temporary Loan Deficiencies of previous years—\$200,000.

EXPENDITURE, TAX RATE, VALUATION FROM 1860

Year	Expenditures	Tax Rate	Total City Valuation
1860	\$ 267,192.07	\$ 8.40	\$22,125,176.00
1865	756,342.81	14.60	21,076,360.00
1870	778,636.03	13.90	25,972,488.00
1875	1,162,922.95	16.20	38,690,495.00
1880	1,398,683.48	16.20	41,102,016.00
1885	1,833,483.69	16.20	51,351,780.00
1890	3,613,584.04	16.00	62,353,612.00
1895	2,903,410.60	18.00	68,885,732.00
1900	2,353,844.41	18.80	71,529,515.00
1905	2,738,502.84	20.20	71,645,718.00
1906	2,795,000.75	19.60	74,945,640.00
1907	2,718,874.34	19.40	76,079,750.00
1908	3,046,987.96	20.40	77,855,891.85
1909	2,791,607.95	19.60	79,695,960.00
1910	2,887,399.24	19.60	80,392,896.00
1911	2,873,195.26	18.90	82,772,900.00
1912	2,847,482.13	19.00	85,384,085.00
1913	3,112,853.71	19.40	87,872,600.00
1914	3,093,197.15	21.90	90,039,890.00
1915	3,207,407.84	20.80	82,954,197.00
1916	3,443,043.82	21.20	94,503,423.00
1917	3,835,043.80	23.40	90,820,901.50
1918	4,026,944.67	23.80	98,774,850.00

†\$15,000.00—Spanish Influenza Epidemic ;\$15,000.00 German War.

DEBT MATURING IN 1919

Department	Date Loan	Rate	Amount Loan	Amount Maturing
Paving and Sewers	June 10, 1909	3½	\$120,000.00	\$12,000.00
Streets and Buildings	September 1, 1909	4	50,000.00	5,000.00
Bridges	September 1, 1909	4	900.00	90.00
Parks	December 6, 1909	4¼	2,000.00	200.00
Sidewalks	May 1, 1914	4	8,000.00	1,600.00
Macadamizing	May 1, 1914	4	30,000.00	6,000.00
Sidewalks	April 1, 1917	4	10,000.00	5,000.00
German War	November 1, 1918	4.70	15,000.00	15,000.00

HIGH STREET CHURCH CLOCK

The clock was built in 1861 under the direction of Mr. George Hedrick. It was to be paid for by popular subscription, but after some time Mr. Hedrick was obliged to make the final payments and it became his property. In 1877 the City Government, by resolution, purchased the clock of Mr. Hedrick. The terms of purchase required the City to keep it in repair at the High Street Church.

COST OF CITY HALL AND MEMORIAL BUILDING

1889-1895—Cost of City Hall	\$382,317.48
1889-1895—Cost of Memorial Building	175,928.45
Land and Curbing	17,219.43
Total	<u>\$575,465.36</u>

PAYMENTS MADE TO SINKING FUNDS IN 1918

	Amount	Fund
City Hall and Memorial Buildings, due 1920	\$ 7,500.00	\$ 450,000.00
High School, due 1921	3,000.00	150,000.00
New School Houses, due 1926	4,000.00	200,000.00
Water Loans, due 1920	16,000.00	1,000,000.00
	<u>\$30,500.00</u>	<u>\$1,800,000.00</u>

PROPERTY EXEMPT FROM TAXATION

	Personal Valuation	Real Estate Valuation	Totals
Literary Institutions	\$ 140,846.90	\$ 466,895.00	\$ 607,641.90
Temperance Institutions	3,365.85	16,350.00	19,715.85
Benevolent Institutions	35,423.62	97,750.00	133,173.62
Charitable Institutions	873,222.67	487,440.00	1,360,662.77
Scientific Institutions	406,420.29	486,650.00	893,070.29
Houses of Religious Worship		2,322,750.00	2,322,750.00
	<u>\$1,459,279.43</u>	<u>\$3,877,835.00</u>	<u>\$5,327,114.43</u>

The total real estate area exempt, 115,806.1000 acres.

Jonathan Tyler Worthy Poor Trust Fund

Deposited with the Washington Inst. for Savings, Book No. 23549.

Amount on deposit, Jan. 1, 1918 \$10,000.00

Resolutions, numbered 14 and 74, passed by the City Council, May, 1878: "That the City of Lowell be appointed trustee of the sum of \$10,000.00, and that the City Treasurer is authorized to pay to the Ministry-at-Large the interest of said sum at the rate of 6 per cent. forever. Said sum to be used for the benefit of the worthy poor of the City. Said Ministry shall make an annual report of their dispensing said money to the City Council." This fund was restored in 1914, and City is paying 4 per cent. only.

Thomas Nesmith Fund

\$25,000.00 Annual Interest, \$1,500.00

Resolution, numbered 57, passed by the City Council, November, 1870: "That the sum of \$25,000.00 be accepted by the City and that the interest, at the rate of 6 per cent., be paid to the trustees, and that they in turn pay to the Ministry-at-Large or to like people, as they may decide. Said sum to be used for people in temporary need of charity without distinction of race, color or religion. Trustees: A. K. Chadwick, A. G. Cumnock, Thos. Nesmith, G. R. Chandler, Treasurer. In case of a vacancy, the remaining trustees shall report to the Justice of the Court, who shall appoint a successor to fill said vacancy." Not a trust fund.

Carney Medal Fund

Received of James G. Carney, in 1858 and 1859, the amount of \$200, which is to remain a perpetual debt of the City forever; the interest to be applied in payment for the "Carney Medals" to the departments of the High School (annually).

For the information of the citizens of Lowell the Auditor respectfully refers them to the "Annual Report of the School Committee," for the year 1859, where all the correspondence between the donor and the recipient may be found.

Thomas Nesmith Fund

\$1,000.00 Annual Interest, \$60.00

Resolution, numbered 54, passed by the City Council, April, 1870: "That the City of Lowell be appointed trustee of the sum of \$1,000.00, and the City Treasurer is authorized to pay to the High Street Church the interest of said sum at the rate of 6 per cent. forever. Said sum to be used by the Pastor and Deacons of said Church to sustain the Sunday School and its library for the moral and religious instruction of the children." Not a trust fund.

STATISTICS ON BRIDGES CROSSING THE MERRIMACK RIVER AT LOWELL

Pawtucket Bridge, 1782

- Year 1782, the Merrimack River Bridge, built of wood at Pawtucket Falls, costing \$8,000.00.
- Year 1804, Pawtucket Falls Bridge rebuilt with stone abutments, costing \$14,000.00.
- Year 1871-2, Pawtucket Falls Bridge rebuilt with iron and stone abutments, costing \$40,135.66, by Blodgett & Curry. Of this amount \$18,000.00 was paid by the Town of Dracut.

Other Bridges on the Merrimack River

- Centralville Bridge, burned August 5, 1882, was rebuilt by The Morse Bridge Co. in 1882-3, at a cost of \$118,265.92.
- Aiken Street Bridge, built by the Cunningham Metal Co. in 1882-3, costing \$171,635.00.
- Moody Street Bridge, built by the Groton Bridge Co. in 1895-6, costing \$88,698.90.

Pawtucket Falls Bridge, 1916-7-8

Loan June 1, 1916	\$125,000.00
Received from Bay State Railway Co.	5,000.00
Loan 1917	24,000.00
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Total Appropriated	\$154,000.00
Expended—	
National Engineering Co.	\$134,542.84
Mr. Denman	1,600.00
G. F. Swain	850.00
J. R. Worcester Co.	3,005.16
Engineers' Dept.	5,331.20
Okonite Cable Co.	121.50
Laying Fire Cable	1,624.09
Laying Water Pipe	6,451.56
Advertising, Hardware, etc.	473.65
<hr/>	
	\$154,000.00

\$2,500.00 paid National Engineering Co. in May, 1917—final payment.

NEW HIGH SCHOOL ACTS 1915

	Dr.	Cr.
1915 October 9, Loan		\$125,000.00
1916 February 29, Loan		100,000.00
1917 April 3, Loan		75,000.00
Sale Buildings, Receipts		4,542.50
		<hr/>
		\$304,542.50
1915 Expenses	\$ 11,002.44	
1916 Expenses	199,676.07	
1917 Expenses	16,936.16	
1918 Expenses	49,014.43	
	<hr/>	\$276,629.10
Balance January 1, 1919		<hr/>
		\$ 27,913.40

CLASSIFICATION OF EXPENSES

Paid for	
Land	\$181,414.16
Advertising	203.52
Auctioneer	338.85
Engineering	461.60
Titles and Recording	1,038.95
Labor and Services	3,421.79
Architects	13,208.33
Steel	73,016.97
Teaming, Hardware, etc.	3,524.93
	<hr/>
Total	\$276,629.10

CARDINAL O'CONNELL PARKWAY

Loan 1915—Extension Dummer St.	\$71,000.00	
Receipts—Sale of Buildings Dummer St., 1916	577.50	
Appropriation 1917	473.91	
Appropriation 1918—Cardinal O'Connell Parkway	650.00	
	<hr/>	\$72,701.41

Expenditures

Labor	\$ 1,139.00	
Examining Titles	393.00	
Land and Buildings	59,641.98	
Advertising	7.35	
Auctioneering	69.85	
Shrubs	63.00	
Services	175.00	
Transfers	10,424.63	
All Other	790.70	
	<hr/>	\$72,701.41

ISOLATION HOSPITAL

Land, Buildings, Equipment, Etc.

	Dr.	Cr.
1915 Appropriation		\$ 4,977.00
1916 Loan		50,000.00
1917 Loan		75,000.00
Loan		100,000.00
Loans		24,000.00
1918 Receipt .....		.95
		<hr/>
		\$253,977.95
1915 Expenses	\$ 183.81	
1916 Expenses	9,135.32	
1917 Expenses	148,069.45	
1918 Expenses	92,426.71	
	<hr/>	\$249,816.29
		<hr/>
Balance January 1, 1919		\$ 4,161.66
		<hr/>

Classification of Expenses

Paid for

Advertising	\$ 84.35
Architect	12,550.00
Contracts	205,863.98
Kitchen Equipment	14,700.00
Land	4,793.19
Laundry	6,600.00
Meter and Fittings	223.44
Transfers	4,723.85
Miscellaneous	277.48
	<hr/>
	\$249,816.29

REPORT OF AN AUDIT
OF THE
ACCOUNTS
FOR THE
CITY OF LOWELL
YEAR ENDING
DECEMBER 31, 1918

MADE BY

EVERETT E. TARBOX
CERTIFIED MUNICIPAL ACCOUNTANT

EVERETT E. TARBOX

EXPERT MUNICIPAL ACCOUNTANT

101 Tremont St.
Room 410
Boston, Mass.

Telephone
Main 2365.

HON. JAMES E. DONNELLY,
Commissioner of Finance,
of the City of Lowell.

SIR:—

In accordance with your instructions, I have made an examination of the books, and an audit of the accounts of the City of Lowell, for the fiscal year ending December 31st, 1918, as required by the provisions of Section 35 of the City Charter, adopted November 7th, 1911.

The financial records of every City Department were examined, checked and verified, and compared with the books of the City Auditor, and a proof obtained of the entire cash receipts and disbursements of the City Treasurer's office during the fiscal year of 1918, as recorded on his cash books.

All bills for services rendered or materials furnished by any department were listed and checked to the departmental records, and collections were checked with the records of the City Treasurer's office. The difference between these two amounts, was proved by listing the unpaid bills and balancing the accounts and comparing same with the accounts kept by the City Auditor.

Outstanding taxes were listed and the total of each levy compared with the balances as shown on the books of the Auditor.

By this method, an absolute proof is obtained that all money due the City has been properly accounted for, and all clerical errors found and corrected. A successful audit must accomplish these results.

This very satisfactory condition is rendered possible, owing to the double entry system of accounting installed in the City Auditor's office, together with its automatic checks on the finances of all other City Departments.

The City Auditor's Ledgers are debited with all money due the City, and the City Treasurer, who is also Collector of all City Revenues, must show that all of these accounts are collected, with the exception of the detailed outstanding accounts, at the time of the annual audit.

The balance as shown on the Auditor's Ledgers, combined with the total list of unpaid accounts, either departmental, or general taxes, must therefore equal the total accounts due to the City from all sources.

If these totals do not agree, the fact is automatically established that an error has occurred, which must be corrected.

The books and accounts of the City of Lowell, are in excellent condition and may be readily verified by an accountant who is experienced in Municipal procedure.

The City Treasurer makes no payments of cash without the authority of a Treasury Warrant issued by the City Auditor, and therefore all Warrants issued during the year 1918, were checked in detail to the bills and accounts in the office of the Auditor.

These detailed accounts were listed and added, and the total found to agree with the total cash payments of the City Treasurer for the entire year.

A summary of the financial transactions of the various departments covering the operations for the entire fiscal year of 1918, as examined and proved, is herewith presented, including trust funds and sinking funds.

A balance sheet, made from audited figures, is appended to this report, showing the financial condition of the City on December 31st, 1918, including both its revenue and non-revenue assets and liabilities.

Municipal Council:—Appropriations, transfers of appropriations, and loans authorized during the year 1918 were listed from the City Clerk's records of orders and resolutions passed; and checked to the Auditor's Journal and General Ledger; and were found to have been correctly entered.

Loans authorized during the year were as follows:

Date	Purpose	Amount
February 20—	Sewer Construction	\$36,000.00
March 26—	Paving Streets	50,000.00
May 9—	Macadamizing	25,000.00
May 9—	Sidewalk Construction	25,000.00
September 9—	Sewer Construction	25,000.00
October 21—	Influenza Epidemic	15,000.00
October 26—	Soldiers and Sailors Dependents	15,000.00
November 9—	Sewer Construction	6,000.00

Total Authorization \$177,000.00

These loans were all negotiated during the year, and an examination of the Treasurer's cash book showed that they had been properly entered and accounted for as authorized.

During the previous year of 1917, authorized loans amounted to \$753,000.00, and as two loans were negotiated which were authorized during the year of 1916, amounting to \$27,000.00, the total amount of bonds issued by the City during 1917 was \$780,000.00.

The comparison is interesting.

The following table exhibits a summary of the total appropriations from revenue, ordered by the Council during the year.

Annual Budget Appropriations	\$2,520,957.54
Additional Appropriations, as follows:	
Auditing City Books	1,000.00
District Police, Special Work	13,000.00
Claims	3,000.00

AUDITOR'S REPORT

Mann School	2,075.28
Schools	327.88
Cardinal O'Connell Park	650.00
Entertaining Soldiers	1,000.00
Streets	15,000.00
Fire	18,300.00
Police	19,700.00
Schools	31,600.00
Buildings	8,000.00
Charity	10,000.00
Health	8,000.00
Treasurer	460.00
Supply	200.00
City Clerk	160.00
Assessors	50.00
Elections	130.00
Parks	1,000.00
Claims	1,000.00
Buildings	900.00
Schools	20,000.00
Textile School	10,000.00
City Hall Boilers	15,000.00
Street Maintenance	10,000.00
Charity	5,000.00
Streets	6,000.00
Claims	4,915.47
<hr/>	
Total Revenue Appropriations	\$2,727,426.17
State and County Assessments:	
State Tax	\$211,860.00
County Tax	104,993.10
Highway Tax	2,631.31
Grade Crossings	4,480.00
Non-Resident Bank Tax	11,890.48
<hr/>	
Total Assessments	\$ 335,854.89
<hr/>	
Total Revenue Appropriations and Assessments	\$3,063,281.06

Mayor's Department.—The only receipts for which the Mayor's Office is directly responsible, are for the issuance of licenses for Sunday amusements. The records of the office showed that licenses were issued during the year amounting to \$3,162.00, and the Treasurer's cash book exhibited a record that this amount was received and duly reported to the City Auditor.

Auditor's Department:—The books and accounts kept by the City Auditor during the year 1918, were examined, checked, added and verified.

The accounts were in excellent condition and readily proved.

These books are a check on and a proof of the financial transactions of all other City departments including the Treasurer's office, and therefore, the records of all departments were verified by comparison with them and the Treasurer's cash account.

Pay-rolls and bills approved for payment by the Committee on Accounts were duly checked and compared with the books of the City Auditor.

The Appropriation Ledger was checked in detail, and the total transactions of every account were listed, showing appropriations, receipts credited to appropriations, transfer credits and debits, both municipal and departmental; payments of cash, and the appropriation balances of each account at the end of the fiscal year.

By this method a proof was obtained that the orders of the Municipal Council had been carried out, and that no money had been disbursed except such as had been duly authorized by the Council.

The Treasurer's payments were found to be in agreement with these records, and this ledger was proved to be correct by the controlling account in the General Ledger.

The General Ledger was examined and checked in detail, and a trial balance drawn off, which was found to be correct.

The Accounts Receivable Ledger, showing the details of all departmental accounts receivable, was examined and verified, and the outstanding accounts found to agree with the controlling account for same, in the General Ledger.

The outstanding accounts of every department were listed, and reconciled to the accounts as shown in the Auditor's Accounts Receivable Ledger.

The following table shows a classified summary of the total cash receipts, and the total revenue and non-revenue payments made by the Treasurer's office during the year, as revealed by the examination of the records of all departments, checked to the City Auditor's books.

The addition to these totals of the cash on hand at the beginning and end of the year, reveals a proof of the total transactions of the Treasurer's office, and his cash balance on January 1st, 1919.

CITY OF LOWELL

Summary of Cash Receipts and Payments, 1918.

RECEIPTS		PAYMENTS	
Taxes	\$2,680,759.13	Revenue Appropriations	\$3,536,842.14
Licenses and Permits	157,088.00	Non-Revenue Appropriations	416,691.17
Fines and Forfeits	10,241.18	Temporary Tax Loans	1,750,000.00
Grants and Gifts	3,822.88	Trust Funds	9,225.00
Special Assessments ..	48,480.61	Tax Titles	2,978.99
General Government ..	3,224.75		
Protection of Persons and Property	1,859.76		
Health & Sanitation ..	7,334.43		
Highways	2,781.25		
Charities	7,785.30		
Soldiers' Benefits	54,273.47		
Education	34,627.03		
Recreation and Unclassified	6,438.93		
Public Service Enterprises	301,217.32		
Cemeteries	15,729.23		
Debt and Interest	2,215,521.66		
Agency and Trust	13,065.35		
Refunds	2,062.47		
Error in reporting Water receipts of July 3rd .....	.09		
Total Receipts	\$5,566,318.84	Total Payments ..	\$5,715,737.30
Cash on hand Jan. 1st, 1918	389,792.57	Cash on hand Dec. 31st, 1918	240,374.11
	<u>\$5,956,111.41</u>		<u>\$5,956,111.41</u>

Treasurer's and Collector's Department:—The books and accounts kept by this office were checked and verified by comparison with the records of all other departments including the books of the City Auditor.

Cash receipts were proved and verified by checking the cash records in detail, and comparing same with all other departmental records, including both receipts collected by the Treasurer in payment of accounts receivable and also collections made by other departments, directly, and for which no bills were sent out.

This department is now administered in a thoroughly efficient manner, and all citizens are assured of businesslike treatment. The books and accounts were found to have been kept in a systematic manner, and were in excellent condition and easily proved.

The immense amount of detail in the work done by this office, requires careful and prompt treatment, and automatic checks have been established on all departmental accounts, so that any clerical errors that might occur may be traced to their source immediately and corrected.

All receipts and payments of cash, without exception, are entered immediately in the general cash book, and the cash is balanced daily, and proved.

The cash on hand in the Treasurer's office was personally counted on March 3rd, 1919, and a reconciliation effected back to January 1st, 1919, as follows:

Cash in Drawer	\$ 7,059.58
Cash in Safe	7,994.42
Cash in Banks (per cash book):	
Lowell Trust Co.	\$46,807.40
Union National Bank	50,364.56
Old Lowell National Bank	46,969.69
Middlesex Trust Co.	48,078.81
Appleton National Bank	47,071.50
Wamesit National Bank	29,092.42
First National Bank of Boston	215.35

Total Cash in Banks	\$268,599.73
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Total Cash Balance on hand March 3rd, 1919	\$283,653.73
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RECONCILIATION

Cash on hand, January 1st, 1919	\$240,374.11
Receipts:	
Month of January	171,321.51
Month of February	333,246.84
March 1st to 3rd	5,458.59
Payments:	
Month of January	\$185,739.07
Month of February	281,008.25
Cash on hand, as counted March 3rd, 1919	283,653.73
	<hr/>
	\$750,401.05 \$750,401.05

PROOF OF BANK BALANCES

March 1st, 1919

Depository	Bank Statement	Treasurer's Office	Outstanding Checks	Feb. Int. not reported
Lowell Trust Co.	\$47,211.73	\$46,914.90	\$ 296.83	
Union National Bank	51,984.00	50,364.56	1,619.44	
Old Lowell National Bank	47,984.57	46,969.69	1,014.88	
Middlesex Trust Co.	55,718.98	48,078.81	7,640.17	
Appleton National Bank	47,071.50	47,071.50		
Wamesit National Bank	30,590.65	29,092.42	1,498.23	
First National Bank	215.35	193.76		\$21.59
	<hr/>	<hr/>	<hr/>	<hr/>
	\$280,776.78	\$268,685.64	\$12,069.55	\$21.59
		12,069.55	Outstanding Checks	
		21.59	Interest Credited	
			In March	
	<hr/>	<hr/>		
	\$280,776.78	\$280,776.78		

RECONCILIATION OF BANK ACCOUNTS

March 1st to March 3rd

Depository	Bank Balance March 1st.	Deposits March 1 to 3	Checks Drawn March 1 to 3	Treas. Bal. March 3
Lowell Trust Co.	\$ 46,914.90		\$107.50	\$ 46,807.40
Union National Bank	50,364.56			50,364.56
Old Lowell National Bank	46,969.69			46,969.69
Middlesex Trust Co.	48,078.81			48,078.81
Appleton National Bank	47,071.50			47,071.50
Wamesit National Bank	29,092.42			29,092.42
First National Bank	193.76	\$21.59		215.35
	\$268,685.64	\$21.59	\$107.50	\$268,599.73
	21.59			107.50
	\$268,707.23			\$268,707.23

The following table shows the entire receipts and disbursements of the Treasurer's office during the year, by months, and the total amounts added to the cash on hand at the beginning and end of the year, show that the balances were correct.

Month	Receipts	Disbursements
January	\$ 126,097.76	\$ 333,899.50
February	461,593.12	285,453.41
March	115,442.82	267,361.85
April	783,591.16	638,440.13
May	80,595.67	329,775.17
June	503,523.76	269,545.05
July	126,410.34	336,466.39
August	676,882.43	483,588.42
September	72,047.03	224,152.65
October	1,741,163.94	951,329.80
November....	548,251.97	845,022.56
December	330,718.84	750,702.37
Totals	\$5,566,318.84	\$5,715,737.30
Cash on hand	389,792.57	240,374.11
	\$5,956,111.41	\$5,956,111.41

The following tables show a summary of the transactions for the year on account of taxes, street sprinkling, moth, sewer and sidewalk assessments, including cash receipts, abatements, and the uncollected accounts on December 31st, 1918, and a proof of same.

Outstanding taxes, including moth and street sprinkling assessments, were verified, by mailing notices to a representative list of delinquent taxpayers asking for a verification of their accounts.

All replies received from these notices proved to agree with the accounts as shown by the tax books.

TAXES 1911

Uncollected, Jan. 1, 1918 (per Auditor's Ledger)	\$	434.00
Cancelled by vote of Municipal Council, Dec. 11, 1918		434.00

TAXES 1914

Uncollected, Jan. 1, 1918 (per Auditor's Ledger)	\$	285.60
Collections Jan. 1 to Dec. 31, 1918		285.60

MOTH 1914

Uncollected, Jan. 1, 1918 (per Auditor's Ledger)	\$	.15
Abated, May 31, 1918 (per Assessor's Records)		.15

STREET SPRINKLING 1914

Uncollected, Jan. 1, 1918 (per Auditor's Ledger)	\$	18.56
Collections, Jan. 1 to Dec. 31, 1918	\$	1.32
Abatements, Jan. 1 to Dec. 31, 1918		17.24
	\$	18.56
	\$	18.56

TAXES 1915

Uncollected, Jan. 1, 1918 (per Auditor's Ledger)	\$	14,412.96
Collections, Jan. 1 to Dec. 31, 1918	\$	390.40
Abatements, Jan. 1 to Dec. 31, 1918		12,952.92
Uncollected, Jan. 1, 1919 (per detailed list)		1,069.64
	\$	14,412.96
	\$	14,412.96

MOTH 1915

Uncollected, Jan. 1, 1918 (per Auditor's Ledger)	\$	1.25
No Collections or Abatements		
Uncollected, Dec. 31, 1919 (per detailed list)	\$	1.75
Less overpayment No. 26788 .....		.50
	\$	1.25
	\$	1.25

STREET SPRINKLING 1915

Uncollected, Jan. 1, 1918 (per Auditor's Ledger)		\$	15.87
Collections, Jan. 1 to Dec. 31, 1918	\$	1.32	
Uncollected, Dec. 31, 1918 (per Auditor's Ledger)		14.55	
	\$	15.87	\$ 15.87

Proof

Uncollected, March 7, 1919 (per detailed list)	\$	14.60
Less undetected error .....		.05
Uncollected, Jan. 1, 1919 (per Auditor's Ledger)	\$	14.55

TAXES 1916

Uncollected, Jan. 1, 1918 (per Auditor's Ledger)		\$210,654.08
Collections, Jan. 1 to Dec. 31, 1918	\$186,025.78	
Abatements, Jan. 1 to Dec. 31, 1918	541.64	
		\$186,567.42
Uncollected, Dec. 31, 1918 (per Auditor's Ledger)		\$ 24,086.66

Proof

Uncollected, Mar. 7, 1919 (per detailed list)	\$	24,072.11
Collections, Jan. 1 to Mar. 7, 1919		33.20
		\$ 24,105.31
Less overpayments	\$ 6.65	
Less undetected error	12.00	18.65
		\$ 24,086.66

MOTH 1916

Uncollected, Jan. 1, 1918 (per Auditor's Ledger)		\$	457.27
Collections, Jan. 1 to Dec. 31, 1918	\$	457.22	
Abatements, Jan. 1 to Dec. 31, 1918 .....		.25	
			457.47
Overpayment, Dec. 31, 1918 (per Auditor's Ledger)		\$	.20

Proof

Overpayment Dec. 31, 1918 .....	\$	.35
Less outstanding account Dec. 31, 1918 .....		.15
	\$	.20

STREET SPRINKLING 1916

Uncollected, Jan. 1, 1918 (per Auditor's Ledger)	\$ 3,641.23
Collections, Jan. 1 to Dec. 31, 1918	3,637.77
	<hr/>
Uncollected, Dec. 31, 1918 (per Auditor's Ledger)	\$ 3.46

Proof

Uncollected, Mar. 7, 1919 (per detailed list)	\$ 2.48
Undetected error	1.00
	<hr/>
	\$ 3.48
Less overpayment .....	.02
	<hr/>
	\$ 3.46

TAXES 1917

Uncollected, Jan. 1, 1918 (per Auditor's Ledger)	\$539,895.01
Collections, Jan. 1 to Dec. 31, 1918	\$331,004.40
Abatements, Jan. 1 to Dec. 31, 1918	3,732.77
	<hr/>
	\$334,737.17
	<hr/>
Uncollected, Dec. 31, 1918 (per Auditor's Ledger)	\$205,157.84

Proof

Uncollected, Mar. 3, 1919 (per detailed list)	\$178,216.15
Collections, Jan. 1 to March 3, 1919	26,925.58
Abatements, Jan. 1 to March 3, 1919	61.40
	<hr/>
	\$205,203.13
Less overpayments	\$12.02
Less undetected error	33.27
	<hr/>
	45.29
	<hr/>
	\$205,157.84

MOTH 1917

Uncollected, Jan. 1, 1918 (per Auditor's Ledger)	\$ 775.32
Collections, Jan. 1 to Dec. 31, 1918	411.77
	<hr/>
Uncollected, Dec. 31, 1918 (per Auditor's Ledger)	\$ 363.55

Proof

Uncollected, Mar. 13, 1919 (per detailed list)	\$ 345.97
	<hr/>
	\$ 365.20
Less overpayment	\$.15
Less undetected error	1.50
	<hr/>
	\$ 1.65
	<hr/>
	\$ 363.55

STREET SPRINKLING 1917

Uncollected, Jan. 1, 1918 (per Auditor's Ledger)	\$ 7,226.69
Re-assessment	1.88
	<hr/>
	\$ 7,228.57
Collections, Jan. 1 to Dec. 31, 1918	\$ 4,069.34
Abatements, Jan. 1 to Dec. 31, 1918	3.06
	<hr/>
	\$ 4,072.40
Uncollected, Dec. 31, 1918 (per Auditor's Ledger)	\$ 3,156.17

Proof

Uncollected, Mar. 3, 1919 (per detailed list)	\$ 2,714.83
Collections, Jan. 1 to Mar. 3, 1919	441.34
	<hr/>
	\$ 3,156.17

TAXES 1918

Commitment (per Auditor's Ledger)	\$2,418,009.91
Supplementary Commitment	5,035.75
	<hr/>
	\$2,423,045.66
Collections to Dec. 31, 1918	\$1,873,091.13
Abatements to Dec. 31, 1918	6,296.27
	<hr/>
	\$1,879,387.40
Uncollected, Dec. 31, 1918 (per Auditor's Ledger)	\$ 543,658.26

Proof

Uncollected, April 1, 1919 (per detailed list)	\$ 393,088.30
Collections, Jan. 1 to Mar. 31, 1919	147,679.72
Abatements, Jan. 1 to Mar. 31, 1919	2,905.42
Undetected error .....	.82
	<hr/>
	\$ 543,674.26

Less overpayments as follows:

Page 278, Line 45	\$2.00
Page 329, Line 15	2.00
Page 517, Line 37	2.00
Page 522, Line 13	2.00
Page 560, Line 22	2.00
Page 586, Line 7.....	2.00
Page 586, Line 40	2.00
Page 55, Line 7	2.00
	<hr/>
	\$ 16.00
	<hr/>
	\$ 543,658.26

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MOTH 1918

Committment (per Auditor's Ledger)		\$	2,768.70
Collections to Dec. 31, 1918	\$	1,806.60	
Abatements to Dec. 31, 1918		11.60	
		<hr/>	1,818.20
Uncollected, Dec. 31, 1918 (per Auditor's Ledger)		\$	950.50

Proof

Uncollected, April 1, 1919 (per detailed list) ..	\$	767.60	
Collections, Jan. 1 to Mar. 31, 1919		181.40	
		<hr/>	
	\$	949.00	
Undetected error		1.50	
		<hr/>	\$ 950.50

STREET SPRINKLING 1918

Commitment (per Auditor's Ledger)	\$	25,612.22	
Re-assessment after payment		1.95	
		<hr/>	
	\$	25,614.17	
Collections to Dec. 31, 1918		18,226.13	
		<hr/>	
Uncollected, Dec. 31, 1918 (per Auditor's Ledger)	\$	7,388.04	

Proof

Uncollected April 1, 1919 (per detailed list) ..	\$	5,896.83	
Collections, Jan. 1 to Mar. 31, 1919		1,491.61	
		<hr/>	
	\$	7,388.44	
Less overpayment	\$.04		
Less undetected error .....	.36		
	<hr/>	\$.40	
		<hr/>	\$ 7,388.04

SEWER ASSESSMENTS

Uncollected Jan. 1, 1918 (per Auditor's Ledger)	\$	8,100.69	
Commitments, Jan. 1 to Dec. 31, 1918		15,139.91	
		<hr/>	
	\$	23,240.60	
Collections, Jan. 1 to Dec. 31, 1918	\$	13,845.74	
		<hr/>	\$ 13,878.89
Uncollected, Dec. 31, 1918 (per Auditor's Ledger)	\$	9,361.71	

Proof

Uncollected, April 11, 1919 (per detailed list)	\$	6,134.05	
Collections, January 1 to April 11, 1919		3,227.66	
		<hr/>	\$ 9,361.71

SIDEWALK ASSESSMENTS

Uncollected, Jan. 1, 1918 (per Auditor's Ledger)			\$ 4,373.26
Commitments, Jan. 1 to Dec. 31, 1918			3,643.57
		<hr/>	\$ 8,016.83
Collections, Jan. 1 to Dec. 31, 1918	\$	6,023.40	
Abatements, Jan. 1 to Dec. 31, 1918		30.10	
		<hr/>	6,053.50
Uncollected, Dec. 31, 1918 (per Auditor's Ledger)			\$ 1,963.33

Proof

Uncollected, April 11, 1919 (per detailed list)	\$	1,111.69	
Collections, Jan. 1 to April 11, 1919		851.64	
		<hr/>	\$ 1,963.33

Assessors' Department:—The records of the Assessors' office relating to the commitment of taxes and special assessments and the abatement of same, were examined, checked, added and verified, and found to be in excellent condition and correct.

Abatements as reported to the City Auditor were found to agree with the amounts credited by the Tax Collector to the various accounts on the Tax Commitment Books, as summarized in the foregoing tables of taxes and special assessments.

License Commissioner's Department:—The City Treasurer received during the year, fees for licenses and permits to an amount of \$10,190.50, excluding the fees for liquor licenses. Of this amount \$6,929.00 was received from the License Commissioners' office. A portion of this amount, or \$360.50 was received by the License Commissioners' office during the year 1917, but was not deposited with the City Treasurer until January, 1918. Therefore, the following classification includes this amount as a receipt of the year 1918.

The following tables show a detailed summary of the amount of cash received during the year by the City Treasurer for licenses issued by this office:—

Liquor Licenses

62 First Class Common Victuallers	@	\$1,300.00	\$ 80,600.00
31 Fourth Class Common Victuallers	@	1,300.00	40,300.00
1 Brewery	@		2,000.00

AUDITOR'S REPORT

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11 Innholders	@	1,800.00	19,800.00
7 Clubs	@	300.00	2,100.00
2 Paints and Chemicals	@	1.00	2.00
34 Druggists		1.00	34.00

Total amount paid Treasurer \$144,836.00

Other Licenses

Classification	Number Issued	Amount
Amusement	47	\$1,358.00
Auctioneers	33	66.00
Common Victuallers	159	795.00
Express and Job Wagon	149	149.00
Intelligence Offices	13	26.00
Pool and Billiards	60	478.00
Second Hand Clothing	13	26.00
Sunday Sale of Ice Cream	329	1,645.00
Special Chauffeurs	61	61.00
Coffee Houses	38	190.00
Motor Bus Seals	17	8.50
Hawkers and Peddlers, First Class	32	731.00
Hawkers and Peddlers, Second Class	9	33.00
Itinerant Musicians	11	14.00
Motor Bus	22	220.00
Innholders	11	55.00
Junk Collectors	82	164.00
Junk Collectors' Badges	9	4.50
Junk Dealers	16	160.00
Recording Liquor Licenses	151	151.00
To Take and Sell Pictures	17	17.00
Bowling Alleys	22	205.00
Pawnbrokers	4	200.00
Old Gold and Silver	4	8.00
Bicycles	1	2.00
Burlap Bags	3	6.00
Shoes and Old Bottles	8	16.00
Ice Cream and Pop Corn	6	6.00
Fourth of July	98	136.00

\$6,931.00

Less error in payment to Treasurer May 6, 1918 2.00

\$6,929.00

This error was corrected March 25, 1919.

City Clerk's Department:—The financial records of this office were listed and checked to the records of the Auditor and Treasurer and found to be in agreement.

The following table shows a summary of the receipts of the department, during the year, and the source of same:—

Permits:

Marriage	1,177.00	\$1,177.00
----------------	----------	------------

Licenses:

Gasoline	112.00	
Lunch Wagon	100.00	
Gunpowder	2.00	
Fire Arms	30.00	
Sausage	1.00	
Vendor	10.00	
	—————	255.00

Services rendered:

Recording Mortgages	\$ 259.26	
Assignment of Wages	9.00	
Married Women's Certificate	5.50	
Miscellaneous	575.62	
	—————	849.38
		————— \$2,281.38

Engineering Department:—The records of the department relating to special assessments, were examined and verified by comparison with the books and accounts of the City Auditor and Treasurer.

These records consist of the commitment of Sewer and Sidewalk Assessments, and the proof of the correctness of these accounts are shown under the head of Treasurer's and Collector's department.

Building Department:—The financial records of this office were examined, checked and verified by comparison with the books of the City Auditor and Treasurer.

The following tables show a proof of the correctness of the accounts of the department, including the bills receivable, and a classification of the receipts on account of same. These receipts were paid direct to the City Treasurer.

Uncollected Jan. 1, 1918 (per Auditor's Ledger)	\$ 91.00	
Committed, Jan. 1 to Dec. 31, 1918	4,970.45	
Collections, Jan. 1 to Dec. 31, 1918	\$4,974.75	
Abatements, Jan. 1 to Dec. 31, 1918	1.20	
Uncollected, Dec. 31, 1918 (per detailed list)	85.50	
	—————	—————
	\$5,061.45	\$5,061.45

Classification of Receipts

School House Rents	\$1,005.00
Court House Rents	2,950.00
Sale of Old Boilers from City Hall	310.00
Sale of Old Bartlett School House	380.00
Miscellaneous Sales	329.75
	<hr/>
	\$4,974.75

In addition to the collections made by the Treasurer, the department also makes collections direct, and deposits same with Treasurer, monthly. These receipts were checked and verified, and during the year were found to be as follows:—

Elevator Operator's Licences	\$ 35.50
Telephone Toll Re-imbursement .....	.68
Public Comfort Station	663.00
	<hr/>
	\$699.18

Police Department:—The receipts of this department are small, consisting almost entirely of bills sent to neighboring Towns for the board of prisoners at the City Jail. The amount of bills sent out during the year was \$55.75 in comparison with an amount of \$566.93 sent out during the previous year, which would indicate that there was a great decrease in the number of prisoners cared for during the year 1918.

The following table shows a proof of the correctness of the accounts of the department.

Uncollected, Jan. 1, 1918 (per Auditor's Ledger)	\$ 5.08	
Committed, Jan. 1 to Dec. 31, 1918	55.75	
Collections, Jan. 1 to Dec. 31, 1918	\$52.00	
Abatements, Jan. 1 to Dec. 31, 1918 .....	.50	
Uncollected, Dec. 31, 1918 (per Auditor's Ledger)	8.33	
	<hr/>	<hr/>
	\$60.83	\$60.83

Cash receipts collected direct by department, and subsequently deposited with Treasurer 23.72

Fire Department:—The records of the Fire Department were checked and verified by comparison with the accounts of the City Auditor and Treasurer. The following table shows a proof of the Accounts Receivable.

Uncollected, Jan. 1, 1918 (per Auditor's Ledger)	\$.45	
Committed, Jan. 1 to Dec. 31, 1918	81.61	
Collections, Jan. 1 to Dec. 31, 1918	\$81.61	
Uncollected, Dec. 31, 1918 (per detailed list) .....	.45	
	<hr/>	<hr/>
	\$82.06	\$82.06

Wire Department:—The departmental records showed bills sent out during the year amounting to \$432.47 and collections of the same amount, which amount was proved by the books of the City Auditor and Treasurer.

There are no uncollected bills in this department, as all accounts sent out are paid promptly.

Sealer of Weights and Measures:—The financial records of this department were examined, checked and verified by comparison with the books of the Auditor and Treasurer. The accounts were, as usual, in excellent condition, and readily proved. The following tables show a proof of the accounts receivable and also of the amount of cash collected by the Sealer, direct and deposited with Treasurer.

Uncollected, Jan. 1, 1918 (per Auditor's Ledger)	\$ 52.62	
Committed, Jan. 1 to Dec. 31, 1918	358.28	
Collections, Jan. 1 to Dec. 31, 1918	\$356.84	
Abatements, Jan. 1 to Dec. 31, 1918	1.24	
Uncollected, Dec. 31, 1918 (per detailed list)	52.82	
	<hr/>	
	\$410.90	\$410.90
Cash collections of Sealer, deposited with Treasurer		\$838.07

Milk Inspector:—The financial records of this office were examined and checked, by comparison with the records of the Auditor and Treasurer.

Licenses issued were as follows:

Milk Licenses	\$225.00
Oleo Licenses	22.50
	<hr/>
Total issued	\$247.50
Paid Treasurer	\$244.50
	<hr/>
Amount due Treasurer	\$ 3.00

The amount due Treasurer was caused by an error in addition, and will be deposited with Treasurer at once.

Health Department:—The financial records of this department were examined, checked, added and verified by comparison with the accounts of the Auditor and Treasurer.

This department is charged with the collection of Garbage and receives much cash for the sale of same at the Health Yard. The department also issues licenses for the collection of Garbage, to citizens.

All receipts of cash made by the department are deposited with Treasurer, daily.

The following table shows a summary of the total cash received by the department during the year, and duly deposited with the City Treasurer.

Sale of Garbage	\$3,822.24
Garbage Licenses	550.00
Board at Influenza Hospital	378.05
Sale of Platinum	19.01
Sale of Horse	325.00
<hr/>	
Total Receipts for 1918	\$5,094.30

The Accounts Receivable of the Department were examined, the outstanding accounts listed and proved as per the following table:—

Uncollected, Jan. 1, 1918 (per Auditor's Ledger)	\$1,404.32	
Committed, Jan. 1 to Dec. 31, 1918		2,379.62
Collections, Jan. 1 to Dec. 31, 1918	\$2,127.13	
Abatements, Jan. 1 to Dec. 31, 1918	263.60	
Uncollected, Dec. 31, 1918 (per detailed list)	1,393.21	
<hr/>		
	\$3,783.94	\$3,783.94

These receipts were received from the following parties:

Commonwealth of Massachusetts	\$2,008.56
City of Boston	8.57
Town of Arlington	110.00
<hr/>	
Total	\$2,127.13

Street Department:—The financial records of this department were examined, checked, added and verified by comparison with the accounts of the City Auditor and Treasurer.

The departmental accounts receivable ledger was found to be in good condition, and in balance with the Auditor's ledger, and the receipts were easily proved.

The uncollected accounts receivable were listed, and the collections proved, as follows:—

Uncollected, Jan. 1, 1918 (per Auditor's Ledger)	\$1,218.51	
Committed, Jan. 1 to Dec. 31, 1918		2,244.51
Collections, Jan. 1 to Dec. 31, 1918	\$1,017.33	
Uncollected, Dec. 31, 1918 (per Auditor's Ledger)	2,445.69	
<hr/>		
	\$3,463.02	\$3,463.02

The receipts of the department were classified as follows:—

Street Maintenance	\$593.26
Sewer Maintenance	34.73
Sewer Connections	380.66
Paving	8.68
<hr/>	
Total	\$1,017.33

As this department now has a good system of accounting, it would be well to have a monthly report of expenditures published in connection with the monthly report of the Finance Department.

Charity Department—Hospital:—The financial records of this department were examined and verified by comparison with the accounts of the City Auditor and Treasurer.

The following table shows a summary of the bills sent out during the year and the collections on account of same, together with the uncollected accounts at the end of the year.

Uncollected, Jan. 1, 1918 (per Auditor's Ledger)	\$ 39.27	
Committed, Jan. 1 to Dec. 31, 1918		2,657.77
Collections, Jan. 1 to Dec. 31, 1918	\$2,382.48	
Uncollected, Dec. 31, 1918 (per detailed list)	313.56	
Error in bill No. 9253, reported too large to Auditor	1.00	
<hr/>		
	\$2,697.04	\$2,697.04

Charity Department—Outdoor Relief:—The financial records of this department were examined and verified by comparison with the accounts of the City Auditor and Treasurer, and were found to be in excellent condition.

The following table shows a proof of the accounts receivable and the collections on account of same:—

Uncollected, Jan. 1, 1918 (per Auditor's Ledger)	\$ 4,562.62	
Committed, Jan. 1, 1918 to Dec. 31, 1918		6,228.59
Collections, Jan. 1 to Dec. 31, 1918	\$ 5,402.82	
Abatements, Jan. 1 to Dec. 31, 1918	328.38	
Uncollected, Dec. 31, 1918 (per detailed list)	5,060.01	
<hr/>		
	\$10,791.21	\$10,791.21

School Department:—The financial records of the School Department were examined, checked, added and verified by comparison with the accounts of the City Auditor and Treasurer.

The accounts receivable were proved by listing the uncollected accounts at the end of the year and effecting a reconciliation with the Auditor's Ledger, as follows:—

Uncollected, Jan. 1, 1918 (per Auditor's Ledger)	\$ 4,940.46	
Committed, Jan. 1 to Dec. 31, 1918	7,560.13	
Collections, Jan. 1 to Dec. 31, 1918	\$10,330.89	
Abatements, Jan. 1 to Dec. 31, 1918	46.93	
Uncollected, Dec. 31, 1918 (per detailed list)	2,122.77	
	<hr/>	<hr/>
	\$12,500.59	\$12,500.59

The total receipts for the year were classified as follows:—

Tuition of State Wards	\$1,926.00
Tuition from Towns and Individuals	8,393.75
Re-imbursement for express charges paid	4.14
Sale of Newsboys' Badges	7.00
	<hr/>
	\$10,330.89

School Department—Vocational:—The financial records of the Vocational School were examined checked, added and verified by comparison with the accounts of the City Auditor and Treasurer.

The following table shows a proof of the accounts receivable and the collections on account of same, together with the outstanding accounts at the end of the year.

Uncollected, Jan. 1, 1918 (per Auditor's Ledger)	\$ 445.55	
Committed, Jan. 1 to December 31, 1918	\$34,036.46	
Collections, Jan. 1 to Dec. 31, 1918	\$19,890.10	
Abatements, Jan. 1 to Dec. 31, 1918	19.51	
Uncollected, December 31, 1918 (per detailed list)	14,572.40	
	<hr/>	<hr/>
	\$34,482.01	\$34,482.01

The large amount of uncollected accounts at the end of the year is accounted for, by the fact that there was due \$14,240.65 from the State of Massachusetts, Board of Education, which was outstanding at that time.

Library Department:—The financial records of the Library were examined, checked, added and verified.

The total receipts of the department for Fines was \$429.69, and this amount was duly deposited with the City Treasurer and reported to the Auditor.

Park Department:—The financial records of the Park Department were examined, and verified by comparison with the accounts of the City Auditor and Treasurer.

The receipts of the department were listed and summarized as follows:

Rent of Land on North Common	\$1,463.50
Special Moth Work	75.05
Total Receipts	<u>\$1,538.55</u>

There were no uncollected accounts, and all cash collections were paid to the Treasurer, as soon as collected.

Water Department:—The financial records of the Water Department were examined, checked, added and verified by comparison with the accounts of the City Auditor and Treasurer.

The accounts receivable were proved by listing the uncollected water bills due the department at the end of the year and effecting a reconciliation with the total amount of bills sent out, and the collections paid to the City Treasurer during the year.

The clerical work of the department is excellent, and the accounts are always in such a condition, that they can be easily proven.

The following tables show the proof of the accounts receivable, including the uncollected accounts at the beginning of the fiscal year, the commitments, collections, abatements and discounts made during the year, and the uncollected accounts at the end of the year, as proved by the list of uncollected accounts drawn off as of that time.

Uncollected, Jan. 1, 1918 (per Auditor's Ledger)	\$ 1,453.41	
Committed, Jan. 1, 1918 to Dec. 31, 1918	335,351.20	
Collections, Jan. 1 to Dec. 31, 1918	\$301,136.72	
Discounts, Jan. 1 to Dec. 31, 1918	29,870.40	
Abatements, Jan. 1 to Dec. 31, 1918	2,504.26	
Uncollected, Dec. 31, 1918 (per detailed list)	3,293.23	
	<u>\$336,804.61</u>	<u>\$336,804.61</u>

The total cash receipts of the department during the year, as proved above constitute the entire income of the department for maintenance purposes, and were classified as from the following sources:—

Water Rates, Annual	\$ 12,013.45
Water Rates, Metered	268,934.05
Maintenance	10,101.09
Construction	4,335.81
Sale of Cast Iron Pipe, 198356 lbs. @ \$58	5,752.32
Total Income	<u>\$301,136.72</u>

The total receipts of the department during the year 1917 were \$272,065.81 and these were increased during the year 1918 to \$301,136.72, but the expenses of the department during the year 1918 were still much in excess of its income.

The following table summarizes the total income and expenses of the department for the fiscal year:—

Income	
Collections from all sources	\$301,136.72
Transfer from Street Watering Appropriation	2,800.00
Transfer from Water Filtration Appropriation	2,308.80
Expenses	
Pay Rolls paid	\$136,791.74
Bills paid	106,508.23
Transfers for departmental services	447.09
Transfer for payment of debt (vote of Municipal Council)	5,352.32
Maturing Debt, charged off	47,000.00
Interest on Indebtedness matured	56,025.00
	<hr/>
	\$352,124.38 \$306,245.52

If the department would discontinue the custom of giving discounts for cash payments of water rates, its income should be sufficient to defray its expenses.

Public Scales:—The financial records of this department consist of a cash book, in which is recorded the details of all receipts. This book was examined, checked, added and verified by comparison with the accounts of the City Auditor and Treasurer.

The total receipts were \$80.50, but the amount paid to the Treasurer was \$80.60 due to an error in addition. The payment to Treasurer on December 6th 1918, was too large by ten cents.

Cemetery Department:—The financial records of this department were examined, checked, added and verified by comparison with the accounts of the City Auditor and Treasurer. The clerical work of the department is performed in an accurate manner and the accounts were found to be in excellent condition and easily proved.

The department is supported entirely by its income from the sale of lots and graves and services, and the receipts during the fiscal year from these sources amounted to \$15,729.23, as compared with 1917 income from the same sources of \$11,756.05. During the same periods, the maintenance expenses of the department show a decrease from \$14,345.78 in 1917 to \$13,315.30 in 1918.

Therefore during the year 1918 the department receipts were more than sufficient to pay all of its maintenance expenses, without touching any of its revenue from Perpetual Care Trust Funds.

The accrued income from these funds during the year amounted to \$5,595.66, and this amount added to the surplus on hand at the beginning of the fiscal year, gives the department a reserve fund from income on Perpetual Care Trust Funds, on December 31, 1918 of \$24,437.96.

Cemetery Department—Concluded:—The following tables show the proof of the accounts receivable, and a classification of the total receipts of the department as credited to its income account.

Uncollected, Jan. 1, 1918 (per Auditor's Ledger)	\$ 3,679.41	
Committed, Jan. 1 to Dec. 31, 1918	11,142.97	
Collections, Jan. 1 to Dec. 31, 1918	\$10,829.73	
Abatements, Jan. 1 to Dec. 31, 1918	13.50	
Uncollected, Dec. 31, 1918 (per detailed list)	3,979.15	
	<hr/>	
	\$14,822.38	\$14,822.38

In addition to the collections made by the City Treasurer, on account of bills sent out, as proved above, there were collections received at the departmental office on account of sales for which no bills were rendered, amounting to \$4,899.50 which sum was verified by an examination of the departmental cash book.

The total receipts amounting to \$15,729.23, were classified as from the following sources:—

Sale of Lots and Graves	\$ 6,478.50
Care of Lots and Graves	5,177.98
Opening Graves	3,950.50
Recording and Miscellaneous	122.25
	<hr/>
Total Income	\$15,729.23

Interest and Indebtedness:—Receipts on account of interest were checked, added and verified and found to total as follows:

Interest on deferred taxes	\$28,699.04
Interest on bank deposits	8,077.68
	<hr/>
Total receipts for Interest	\$36,776.72

The records of Loans authorized, and the receipts on accounts of loans issued during the year were examined and verified. The receipts were in accordance with the orders of the Municipal Council.

The following table shows a summary of the total receipts from loans, including premiums and accrued interest on same.

Bonds issued	\$ 177,000.00
Temporary Revenue Loans	2,000,000.00
Premiums on above loans	968.07
Accrued Interest on above loans	776.87
	<hr/>

Total receipts from Indebtedness \$2,178,744.94

Payments on account of Interest and Debt were proven by the Auditor's debt record of amounts maturing during the fiscal year, and by an examination of the Treasurer's subsidiary cash book and special bank account showing the detailed payments on account of maturing debt and interest.

Interest and Indebtedness—Concluded:—The interest requirements and debt maturing during the fiscal year were as follows:—

Interest:

On Temporary Loans	\$ 47,618.02	
On General City Debt	134,948.10	
On Water Debt	56,025.00	
Expense of Bond Issues	2,202.50	
Total interest requirements		\$240,793.62

Indebtedness:

General Maturing Debt	\$412,621.30	
Water Maturing Debt	47,000.00	
Total debt requirements		\$459,621.30

Total Interest and Maturing Debt \$700,414.92

The following table shows a proof of this trust account, in the possession of the City Treasurer, for the payment of Maturing Debt and Interest on same. As fast as the debt and interest becomes due the cash to pay same is deposited in this special fund, and held until the maturing bonds and coupons are presented for payment, which sometimes is long after the date of maturity.

Unpaid Debt and Interest Jan. 1, 1918 (per Auditor's Ledger)	\$ 13,665.00	
Interest and Debt requirements (as above)	700,414.92	
Total payments during year (verified)	\$700,648.67	
Unpaid Debt and Interest December 31, 1918	13,431.25	
		<hr/>
	\$714,079.92	\$714,079.92

The amount of unpaid debt and interest on December 31, 1918, was verified by examination of the bank statement of the balance to the credit of this account on that date.

Sinking Funds:—The City of Lowell has loans outstanding amounting to \$1,800,000.00, for the payment of which, sinking funds have been provided.

The total amount of cash and securities in these funds on December 31, 1918, was \$1,597,655.31.

The securities of the four sinking funds, comprising the total amount owned by the City was personally examined and checked to a prepared list, and reconciled back to January 1, 1919.

The securities belonging to these funds were found to be in excellent condition, systematically labeled and filed, and were therefore easily verified.

All coupons not matured were found to be intact, and the securities checked agreed with the list furnished, and also with the books of the City Treasurer, who is also Treasurer of all Sinking Funds.

The income earned by each fund was figured, and the cash transactions of the funds during the year were examined and proved.

The following tables show the receipts and payments during the year, together with the cash balances at the beginning and end of the year, as verified by Bank statements of deposits on hand at the periods mentioned:—

WATER LOAN SINKING FUND

1918

	Cash	Securities	Total
On hand at beginning of year	\$31,131.22	\$829,621.30	\$860,752.52
On hand at end of year	1,944.56	908,450.00	910,394.56

Receipts		Payments	
Annual Appropriation ..	\$ 16,000.00	Securities purchased	
Income on Securities ..	34,178.47	(par)	\$106,000.00
Interest on Deposits	236.01	Premiums on above	204.00
Securities matured and sold	27,171.30	Accrued Interest on above	908.34
Discount on securities purchased	339.90		
Total Receipts	\$ 77,925.68	Total Payments	\$107,112.34
Cash, Jan. 1, 1918	31,131.22	Cash, Dec. 31, 1918	1,944.56
	<u>\$109,056.90</u>		<u>\$109,056.90</u>

HIGH SCHOOL SINKING FUND

1918

	Cash	Securities	Total
On hand at beginning of year	\$3,846.32	\$129,000.00	\$132,846.32
On hand at end of year	975.57	140,500.00	141,475.57

Receipts		Payments	
Annual Appropriation ..	\$ 3,000.00	Securities purchased	\$ 18,500.00
Income on Securities	5,593.75	Premiums on above	63.50
Interest on deposits	27.81	Accrued interest on	
Securities sold	7,000.00	above	62.66
Discount on securities			
purchased	133.85		
Total Receipts	\$ 15,755.41	Total Payments	\$ 18,626.16
Cash, Jan. 1, 1918	3,846.32	Cash, Dec. 31, 1918	975.57
	\$ 19,601.73		\$ 19,601.73

NEW SCHOOL HOUSES SINKING FUND
1918

		Cash	Securities	Total
On hand at beginning of year		\$5,452.42	\$116,000.00	\$121,452.42
On hand at end of year		141.15	130,000.00	130,141.15
<hr/>				
Receipts		Payments		
Annual Appropriation ..	\$ 4,000.00	Securities purchased		
Income on Securities	4,806.25	(par)	\$ 19,000.00	
Interest on deposits	55.06	Premiums on above	70.30	
Securities sold	5,000.00	Accrued interest on		
Discount on securities		above	208.78	
purchased	106.50			
Total Receipts	\$ 13,967.81	Total Payments	\$ 19,279.08	
Cash, Jan. 1, 1918	5,452.42	Cash, Dec. 31, 1918	141.15	
	<hr/>		<hr/>	
	\$ 19,420.23		\$ 19,420.23	

CITY HALL AND MEMORIAL BUILDING SINKING FUND

1918

	Cash	Securities	Total
On hand at beginning of year	\$9,734.24	\$381,900.00	\$391,634.24
On hand at end of year	4,944.03	\$410,700.00	415,644.03

Receipts		Payments	
Annual Appropriation ..	\$ 7,500.00	Securities purchased	
Income on Securities	16,420.75	(par)	\$ 34,000.00
Interest on Deposits	63.08	Premiums on above	6.40
Securities Matured	5,200.00	Accrued interest on	
Discount on Securities		above	333.44
purchased	365.80		
Total Receipts	\$ 29,549.63	Total Payments	\$ 34,339.84
Cash, Jan. 1, 1918	9,734.24	Cash, Dec. 31, 1918	4,944.03
	<u>\$ 39,283.87</u>		<u>\$ 39,283.87</u>

AUDITOR'S REPORT

Trust Funds:—The securities belonging to the several Trust Funds, held by the City of Lowell, were personally examined, and listed, and the cash transactions during the year were checked and proved.

It is my duty to call to your attention, the fact that three of these funds are without securities, although an effort was made by you during the year to have this rectified.

The following tables show the standing and value of the Trust Funds, for which the City has Cash and Securities, as examined and proved:—

John Davis Library Fund

	Cash	Securities	Total
On hand at beginning of year	\$486.02	\$100,544.15	\$101,030.17
On hand at end of year	199.45	100,527.98	100,727.43
Decrease in funds	\$286.57	\$ 16.17	\$ 302.74

Receipts

Mortgage payment	\$ 25.00
Income on securities	3,035.00
Interest on deposits	11.07
National Bank Tax	82.71

Payments

Mortgage payment	\$ 25.00	To Library Trustees	\$3,440.35
Income on securities	3,035.00		
Interest on deposits	11.07		
National Bank Tax	82.71		
Total receipts	\$3,153.78	Total payments	\$3,440.35
Cash, Jan. 1, 1918	486.02	Cash, Dec. 31, 1918	199.45
	\$3,639.80		\$3,639.80

The securities belonging to this fund on December 31, 1918, were examined and found to be as follows:—

Registered Bonds	\$ 84,000.00
Railroad Stocks	8,200.00
Industrial Stocks	2,100.00
Bank Stocks	3,500.00
Mortgage Notes	2,525.00
Central Savings Bank, Book No. 35073	202.98
Total Par Value of Securities	\$100,527.98
Cash in Appleton National Bank	199.45
Total Value of Fund, December 31, 1918	\$100,727.43

Hapgood Wright Centennial Fund

On hand January 1, 1918	\$5,443.90
Income earned during year	247.68

On hand December 31, 1918 \$5,691.58

Securities examined, as follows:—

City Institution for Savings, Book No. 39419 ..	\$4,550.05
Lowell Institution for Savings, Book No. 54679	1,141.53

Value of Securities, December 31, 1918 \$5,691.58

Johnathan Tyler Worthy Poor Fund

The securities belonging to this fund, consist of Savings Bank Books, to a total amount, on December 31, 1918, of \$10,000.00. The income earned during the year amounted to \$400.00, and this money was distributed as provided for by the terms of the deed of gift.

A list of the Securities, as examined and verified, is herewith shown:

Middlesex Safe Deposit & Trust Co.	\$ 4,000.00
Lowell Five Cent Savings Bank, Book No. 139598	2,000.00
Mechanics Savings Bank, Book No. 40383	2,000.00
City Institution for Savings, Book No. 124206	2,000.00
	<hr/>
	\$10,000.00

Cemetery, Perpetual Care Trust Funds

	Principal	Income	Total
On hand, January 1, 1918	\$105,765.00	\$18,842.30	\$124,607.30
Receipts during the year 1918	9,225.00	5,595.66	14,820.66
	<hr/>	<hr/>	<hr/>
On hand Dec. 31, 1918 (per list)	\$114,990.00	\$24,437.96	\$139,427.96
Securities examined, and verified were as follows:—			
Middlesex Safe Deposit & Trust Co., Book No. 1755			\$17,636.99
Mechanics Savings Bank, Book No. 24823			17,168.49
Merrimack River Savings Bank, Book No. 8765			18,716.23
City Institution for Savings, Book No. 74283			16,277.82
Washington Savings Bank, Book No. 1216			16,874.09
Lowell Five Cent Savings Bank, Book No. 47514			17,879.56
Central Savings Bank, Book No. 26100			17,579.05
Lowell Institution for Savings, Book No. 79266			17,295.73
			<hr/>
Total Value of Securities, Dec. 31, 1918			139,427.96

Conclusion:—The audit of the 1918 accounts has shown that the books and accounts are in a most satisfactory condition, and the clerical work performed by the various departments has been well done.

Accurate information regarding any of the Municipal accounts, is readily obtainable by any interested parties, at the office of the City Auditor and City Treasurer, and this always a test of clerical work being well performed.

The appended Balance Sheet, under date of January 1, 1919, made from audited and proven figures, reveals the true financial condition of the City on that date.

I wish to express my appreciation for the courteous treatment received during the course of the annual audit. All books and papers in every department were placed at my disposal cheerfully and promptly, and assistance was cheerfully given when needed.

Respectfully submitted,

EVERETT E. TARBOX.

CITY OF LOWELL

Balance Sheet January 1, 1919

REVENUE		Liability Accounts	
Asset Accounts		Temporary Loans:	
Cash:		Anticipation of Taxes	\$1,000,000.00
In Banks and Office		Premiums (Reserved for payment of debt)	968.07
Accounts Receivable:		Appropriation Balances:	
Taxes 1915.....	\$ 1,069.64	(Reserved for Special Purposes)	
" 1916.....	24,086.66	New City Hall Boilers	\$ 165.17
" 1917.....	205,157.84	Water Works, Special	5,352.32
" 1918.....	543,658.26	Cemetery	4,733.17
Moth Assessments, 1915.....	\$ 1.25	Claims	267.17
" " 1917.....	363.55	Revising Ordinances	495.50
" " 1918.....	950.50		
			\$ 11,013.33
Less Overpayment of Moth Assessment 1916	\$ 1,315.30	Overlays:	
	.20	(Reserved for Abatement of Taxes)	
Street Sprinkling 1915.....	\$ 14.55	1916	\$ 16,807.25
" " 1916.....	3.46	1917	15,051.34
" " 1917.....	3,156.17	1918	28,294.50
" " 1918.....	7,388.04		
Sewer Assessments	\$ 10,562.22		\$ 60,153.09
Sidewalk Assessments	9,361.71		
Tax Titles	1,963.33		
	5,704.40		

REVENUE—Continued

[illegible]

Balance Sheet, January 1, 1919—Continued

NON-REVENUE

General

Asset Accounts

Liability Accounts

Cash:			
In Banks and Office	\$ 59,259.37	Appropriation Balances from Loans:	
		Health and Sanitation:	
		Sewer Construction	\$ 4,240.07
		Isolation Hospital	1,461.66
		Isolation Hospital Furnishings ..	2,700.00
			\$ 8,401.73
		Highways and Bridges:	
		Paving	\$ 80.36
		Macadamizing	124.01
		New Sidewalks	281.04
		Wedge and Porter Streets .....	.10
		School Street and Mammoth Rd.	632.69
		Sale of Dummer Building	102.30
			\$ 1,220.50
		Education:	
		New High School	\$ 27,913.40
		School Construction	13,162.67
		School House Repairs .....	.30
			\$ 41,076.37

NON-REVENUE—Continued

Recreation :

Chambers Street Playground	\$ 892.45
Land for Public Park	1,252.12
Park Purposes	2,371.74
Fairgrounds—Park	56.34
	<hr/>
	\$ 4,572.65

Unclassified :

Lawful Municipal Purposes	202.61
Public Service Enterprises, Addi- tions to Water Plant No. 2	3,785.51
	<hr/>
	\$59,259.37

\$ 59,259.37

Balance Sheet, January 1, 1919—Continued

NON-REVENUE—Continued

Indebtedness

Asset Accounts

Sinking Funds:

(Cash and Securities)

Water Loan Fund	
City Hall Loan Fund	
High School Loan Fund	
School Houses Fund	

\$ 910,394.56	
415,644.03	
141,475.57	
130,141.15	

Funded Debt (with Sinking Funds)..

Water Loan, due Nov. 1, 1920	\$1,000,000.00
City Hall Loan, due Oct. 1, 1920	450,000.00
High School Loan, due April 1, 1921	150,000.00
School Houses Loan, due July 1, 1926	200,000.00

\$1,800,000.00

Total Sinking Funds

Net Bonded Debt

\$1,597,655.31	Serial Bonds:
2,864,219.69	3½% Loans
	4% Loans
	4¼% Loans
	4½% Loans
	4¾% Loans
	5% Loans

\$ 24,000.00
1,795,375.00
103,400.00
647,900.00
15,000.00
50,000.00

\$2,635,675.00

Trust Funds, Used by City

26,200.00

\$4,461,875.00

\$4,461,875.00

NON-REVENUE—Continued

TRUST

Trust Funds:			
Cash and Securities	\$269,278.22	Jonathan Tyler, Worthy Poor Fund	\$ 10,000.00
Used by City	26,200.00	John Davis, Library Fund	100,727.43
		Hapgood Wright, Centennial Fund	5,691.58
		Cemetery, Perpetual Care Funds ..	139,427.96
		Unpaid Debt and Interest	13,431.25
			<u>\$269,278.22</u>
		Carney, Medal Fund	\$ 200.00
		Nesmith, Worthy Poor Fund	25,000.00
		Nesmith, High Street Church Fund	1,000.00
			<u>\$ 26,200.00</u>
	<u>\$295,478.22</u>		<u>\$295,478.22</u>

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Seventh Annual Report
OF THE
Commissioner of
Water Works
OF THE
CITY OF LOWELL, MASS.

To the Municipal Council, for the year ending
Dec. 31, 1918 and being the Forty-sixth
Annual Report of the Water
Works Department



Including Reports of the Superintendent,
City Engineer and Registrar

1918

The annual report of the operation of the Water
Works Department of the City of Lowell for 1918, by the
Superintendent, ROBERT J. THOMAS,
Engineer, STEPHEN KEARNEY,
Registrar, J. W. CRAWFORD,
to Hon. Charles H. Morse, Commissioner Water Works
and Fire Protection, Lowell, Mass.

FINANCIAL STATEMENT, LOWELL WATER WORKS, 1918.

DETAIL OF "PRINCIPAL AND INTEREST"

	Amount of Original Loan	Amount Jan. 1, 1918	Annual Payment	Amount Jan. 1, 1919	Interest 1918	Rate per cent	Interest Payable
Bonds 1890	\$1,000,000.00	\$1,000,000.00	.....	\$1,600,000.00	\$40,000.00	4	May Nov.
A. C. Pump 1910	60,000.00	18,000.00	6,000.00	12,000.00	720.00	4	June Dec.
P. S. Reservoir, etc. 1911	100,000.00	40,000.00	10,000.00	30,000.00	1,600.00	4	Feb. Aug.
P. S. Reservoir, etc. 1912	75,000.00	56,250.00	3,750.00	52,500.00	2,250.00	4	Mar. Sept.
P. S. Reservoir, etc. 1913	75,000.00	60,000.00	3,750.00	56,250.00	2,700.00	4½	Feb. Aug.
Land for Wells 1914	15,000.00	13,500.00	500.00	13,000.00	540.00	4	Feb. Aug.
Purification Plant 1915	225,000.00	201,000.00	12,000.00	189,000.00	7,800.00	4	Apr. Oct.
Extension Mains, etc. 1916	55,000.00	44,000.00	11,000.00	33,000.00	1,540.00	4	May Nov.
		\$1,432,750.00	\$47,000.00	\$1,385,750.00	\$57,150.00		

FINANCIAL STATEMENT.
LOWELL WATER WORKS, 1918.

*Appropriation for Purification Plant, 1918, and Department
Equipment.*

Balance from 1917	\$2,308.80
Transferred to Water Works for labor and material	2,308.80

APPROPRIATION FOR PURCHASE OF LAND.

Balance from 1917		\$4,870.51
Paid for land	\$100.00	
Paid for P. S. No. 2	985.00	
	<hr/>	
		\$1,085.00
Balance to 1919	3,785.51	
	<hr/>	
		\$4,870.51

FINANCIAL STATEMENT,
LOWELL WATER WORKS, 1918.

Maintenance.

Labor :

Office and officials	\$18,943.00	
Pumping station	37,166.92	
Filter	10,443.98	
General maintenance	59,667.11	
	<hr/>	\$126,221.01

Material :

Water works supplies	\$14,075.90	
Pumping station supplies	4,373.02	
Coal	57,018.19	
Stable	12,797.50	
Filter	744.88	
	<hr/>	\$89,009.49

\$215,230.50

Construction.

Labor	\$10,540.73	
Material	10,898.59	
	<hr/>	\$21,439.32

FINANCIAL STATEMENT, LOWELL WATER WORKS, 1918.

<i>Expended.</i>		<i>Charges and Receipts, 1918.</i>			
	Total	Labor	Material	Water	Total
Administration Expense:					
Payroll	\$18,943.00	\$1,265.76	\$1,529.77	\$52,117.88	\$54,913.41
Supplies	2,193.47	986.36	1,363.72	69,011.65	71,361.73
General Expense:					
Payroll	\$76,737.16	.....	.....	13,129.87	13,129.87
Supplies	39,656.04	.....	.....	99,923.25	108,639.23
Pumping Station Expense:					
Payroll	37,166.92	.....	.....	79,877.73	87,306.96
Supplies	61,391.21	.....	.....	.....	.....
Meter Expense:					
Payroll	3,710.01	.....	.....	.....	.....
Supplies	3,686.46	.....	.....	.....	.....
Interest payments					
Principle payments					
Refunds					
Total expenses	\$319,752.06				\$306,245.52

FINANCIAL STATEMENT, LOWELL WATER WORKS, 1918.

CONSOLIDATED STATEMENT.

Receipts.		Expenditures.	
Balance, Jan. 1, W. W.	\$1,941.75	For operation and repairs	\$215,235.50
App. fitter	2,308.80	Interest	35,005.00
App. land	4,870.51		<hr/>
	<hr/>	Payment on loans	\$250,235.50
Received from water rates	\$263,181.46	Payment for sinking fund	41,000.00
Received from fixtures	12,478.70	Payment for W. W. construction	16,000.00
	<hr/>	Payment for land	21,439.32
Received from city departments	\$275,430.16	Payment for Rep. P. Sta. No. 2	100.00
	<hr/>	Payment for Trans. to debt account	985.00
Received from labor and material	\$284,061.18	Payment for unclassified expenses	5,352.32
Received from tax levy	17,566.74	Payment for refunds	4,505.65
On hand December 31, 1918	16,000.00	Balance app. land	262.79
	<hr/>		3,785.51
	<hr/>		<hr/>
			\$343,666.09

Superintendent's Report

LOWELL, MASS., January 1, 1919.

Mr. Charles J. Morse,
Commissioner of Water Works and Fire Protection
of the City of Lowell, Massachusetts.

• DEAR SIR:—

Following is the annual report of the Superintendent of Water Works, setting forth the construction, maintenance and operation work of the Department for the year 1918:

Yield of Water from Wells for the Last Five Years.

	1914	Gallons	Gallons
Boulevard wells	1,669,000,059		
Cook wells	429,043,968	2,098,044,027	
1915			
Boulevard wells	1,794,362,400		
Cook wells	150,597,440	1,944,959,840	
1916			
Boulevard wells	2,173,419,200		
Cook wells	No Pumpage	2,173,419,200	
1917			
Boulevard wells	2,186,550,000		
Cook and hydraulic wells	111,295,232	2,297,845,232	
1918			
Boulevard wells	2,109,693,000		
Cook and hydraulic wells	668,389,248	2,778,082,248	

These figures show an increase in total pumpage from the two well fields of 480,237,016 gallons for 1918, as compared with the previous year. Of this quantity the Boulevard wells fell off 76,857,000 gallons, while the Cook wells were drawn upon for 668,389,248 gallons, against 111,295,232 gallons in 1917, and none in 1916.

The water from the Cook wells is undesirable because of its action on lead pipe and excessive cost of pumping, but, owing to shortage of the Boulevard supply, became necessary.

Coal Used for Pumping the Last Five Years.

1914.....	5,806,027 lbs.	Gals. pumped per lb. of coal ..	.674
1915.....	4,583,668 lbs.	Gals. pumped per lb. of coal ..	.838
1916.....	4,891,213 lbs.	Gals. pumped per lb. of coal ..	.915
1917.....	5,769,572 lbs.	Gals. pumped per lb. of coal ..	.803
1918.....	8,925,953 lbs.	Gals. pumped per lb. of coal ..	.561
Cost of coal purchased in 1914			\$12,933.43
Cost of coal purchased in 1915			13,493.65
Cost of coal purchased in 1916			18,371.07
Cost of coal purchased in 1917			30,541.05
Cost of coal purchased in 1918			61,523.87

The excessive cost of coal of last year was due in a great measure to high prices and the inferior quality of the coal supplied; also, of course, to the increased pumpage.

Purification Plant.

The Purification, or Filter, Plant is in a very bad condition. The coke prefilters are clogged with iron deposit to such an extent that they are only capable of caring for one-half their rated capacity. This means the overhauling of each filter basin, and the replacement of some of the coke. The sand filters are also in need of new sand, and a thorough washing of the old sand.

This latter work has been hampered by the poor water pressure obtainable, and the remedy calls for a pump of about 500 gallons per minute capacity against a head of 200 feet. Prices obtained on a turbine centrifugal pump of the required capacity, etc., to be installed at the Pumping Station, call for an outlay of \$1,800.

Construction.

Fifty new two and one-half inch wells should be added to the present Boulevard Well Plant, which can be seen by the figures of last year's pumping, is inadequate to meet consumption. Part of the material for these new wells is now on hand, and they should be installed as soon as possible. Under the

10 REPORT OF COMMISSIONER OF WATER WORKS.

head of construction, also, should be included cast iron mains for distributing water. For the last five years the following amounts were laid:

	Feet	Total Cost	Cost per Ft.
1914	5105	\$18,243.40	\$3.57—
1915	9113	23,970.45	2.63
1916	5885	18,917.69	3.21
1917	5720	28,486.49	4.98
1918	4279	21,439.32	5.01+

These figures show less extension of street mains the past year than for five previous years, with the prospect for the year 1919 of still less pipe laying, so that probably about \$15,000 would be sufficient to meet all demands in this line of work.

Gates and Hydrants.

Fifteen new gates and nine new hydrants were set during last year.

CONSUMPTION.

Following is the average daily consumption for the last five years, with total annual charges for water:

	Gallons	
1914	5,983,614	\$245,101.42
1915	5,427,382	238,512.63
1916	6,096,074	265,562.53
1917	6,479,729	266,793.27
1918	7,544,243	314,047.66

These figures show quite a jump in the consumption of water for 1916 over the previous year, with a corresponding increase in water charges. In 1918, as compared with 1917, the consumption and the charge for water show a still more decided growth, making a gain of \$47,254.39 as compared with 1917. Indications point, at this time, to a material reduction in consumption of water for 1919, and a consequent loss in water charges, unless the rates are increased.

That the water rates should be adjusted to meet present outlay for labor and material, no one doubts. At least, the

deficit in the revenues of last year of practically \$67,000 should be sufficiently convincing of the necessity of a larger income.

Whether this increase in income should in part be borne by taxpayers as an appropriation for fire service, or whether the water takers should bear the whole burden, is a matter for careful consideration.

SERVICES.

Following is the number of new services laid and old services changed during the last five years:

Year	New	Old
1914	160	163
1915	277	184
1916	202	93
1917	178	153
1918	112	201

The last year shows a material falling off in new work, which, of course, means a smaller increase in the number of new customers, and was due to less activity in the building line.

Up to last year, the brass fittings which go on every service, such as corporation, curb and cellar cocks, were made in the Water Works shop, but last March the shop was practically closed and the department purchased these and all brass goods required, making a saving in both material and labor which entered into the cost of new service.

On account of the severe cold of last January and February one hundred and sixty-four services had to be repaired, which is far more than the usual number, not to speak of the large number that were thawed out.

During the year 1918, the number of meters frozen, and removed for that reason, exceeded all previous years, and owing to the laying off of the machinists and other help at the Water Works repair shop, about 700 of these meters were not repaired or reset.

This condition necessitated the making of average bills in place of the regular meter bills, which is unsatisfactory, both to the water taker and to the department. It also probably led

to considerable waste of water in these temporarily unmetered premises.

These meters should be repaired and reset, and those that are out of order in cellars, of which there are a large number, ought to be taken out and put in condition. It will undoubtedly pay in water saved, to do this work.

FINANCIAL.

Although comparatively less work in the way of new services, main pipe extension, new hydrants, stop valves and general upkeep was done the past year, yet, owing to the high cost of material and labor, the receipts of the department proved hopelessly inadequate. One of the great causes of expenditures for the past year overrunning receipts was the high price and inferior quality of the coal supplied at the different pumping stations for pumping. The pay roll for last year was less than in 1917, but still very much larger than for the previous three years.

That the pay roll was not still larger was due to the fact that less work was done, and that the repair shop was practically closed down for several months. During November and December, the shop was again started and the pay rolls mounted to upwards of \$13,000 per month, or \$156,000 per year.

To meet this condition of high cost of labor, coal, etc., a radical increase in the revenues of the department must be made.

The consolation that in 1920-21 the maturing of the sinking fund will save the department about \$60,000 annually must not deter us from increasing the income of the department for present needs. Nor should we lose sight of the fact that some time our present driven well system will prove inadequate as a water supply for the city.

Even today it might be profitable to look into the future and consider the problem of a greater and more permanent supply. Up to date Lowell's expenditures for water supply have been comparatively small. Driven wells within the city limits offered an easy, convenient and cheap way of getting good wa-

ter, much more so than if it becomes necessary, for instance, to connect with the Metropolitan Water Works at Clinton. Therefore, it seems the part of wisdom to amply provide the means for maintaining and extending the driven well system, so that it may be sufficient to meet the needs of the city as long as possible.

MAINTENANCE.

Much of the equipment of the department is in very bad condition, especially the steam boilers at the West Sixth street and Boulevard pumping stations, and the pumping machinery at the Cook Wells and West Sixth street pumping station. The buildings of the department need repairing and repainting, and the Cook Wells pumping station should be entirely rebuilt when a new pump is purchased. Trucks, wagons and horses of the department are so old they cannot be counted on for much further service. Machine tools and other tools at the shop should be overhauled and in some cases replaced, especially those intended for service and meter repair work.

The amount of cast iron pipe and special castings in stock is comparatively low.

Respectfully submitted

ROBERT J. THOMAS,
Superintendent.

NEW SERVICE, 1918.

No.	Kind	Feet
86	$\frac{3}{4}$ in. Galvanized Iron.....	3,442.6
11	1 in. Galvanized Iron.....	648.0
3	$1\frac{1}{2}$ in. Galvanized Iron.....	221.2
5	2 in. Galvanized Iron.....	144.6
1	$2\frac{1}{2}$ in. Black Iron.....	256.0
1	3 in. Galvanized Iron.....	375.0
1	4 in. Cast Iron.....	93.0
4	6 in. Cast Iron.....	182.11
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112		5,363.1

Total previously laid 554,735 feet
 Total now laid 560,098 feet
 Total number services laid 14,977
 Total number cut off at main 1,085
 Total number reconnected 93
 Total number now in use 13,985

SERVICES CHANGED, 1918.

No.	Kind	Changed To					Total
		Gal. Iron $\frac{3}{4}$ in.	Gal. Iron 1 in.	Gal. Iron $1\frac{1}{2}$ in.	Gal. Iron 2 in.	Lead 1 in.	
4	$\frac{5}{8}$ in. Lead	50- 6					50- 6
1	$\frac{5}{8}$ in. Lead		7- 9				7- 9
14	$\frac{3}{4}$ in. Lead	214- 5					214- 5
1	$\frac{3}{4}$ in. Lead		67- 0				67- 0
1	1in. Lead	14- 6					14- 6
7	1in. Lead		80- 9				80- 9
1	1in. Lead					8-11	8-11
2	$\frac{3}{4}$ in. Lead L.	84- 0					84- 0
2	$\frac{3}{4}$ in. Lead L.		78- 5				78- 5
40	$\frac{3}{4}$ in. Iron	961-10					961-10
13	1in. Iron	278- 3					278- 3
8	1in. Iron		137- 6				137- 6
1	$1\frac{1}{2}$ in. Iron			38-6			38- 6
2	2in. Iron				28-2		28- 2
79	$\frac{3}{4}$ in. Tin L.	1,903- 5					1,903- 5
14	$\frac{3}{4}$ in. Tin L.		446-10				446-10
1	$\frac{3}{4}$ in. Tin L.			19-9			19- 9
1	1in. Tin L.	17- 8					17- 8
9	1in. Tin L.		164- 6				164- 6
201		3,524- 7	982- 9	58-3	28-2	8-11	4,602- 8

METERS.

Meters running January 1, 1918	11,889
New Meters set 1918	174
Meters discontinued	1
Meters condemned and not replaced	1
Total increase for year	172
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Meters running January 1, 1919	12,061
Meters condemned and replaced	5
Private meters sold	21
Private meters changed	2
Private meters discontinued	1
Private meters repaired	2
Meters changed	7
Meters stopped	401
Meters frozen and repaired	583
Meters stored at shop	35
Meters leaking	50
Meters out for test	8
Meters out—hands gone	14
Meters out—put in stock	12
Meters discontinued	1
Temporary meters set	4

METERS RUNNING JANUARY 1, 1919.

Sizes in Inches	$\frac{5}{8}$ in.	$\frac{3}{4}$ in.	1 in.	1½ in.	2 in.	3 in.	4 in.	6 in.	8 in.	Total
Columbia	74	1								75
Crown	3210	1653	337	26	46	7	7	5		5,291
Desper	14	4	3							21
Duplex	1		1							2
Empire	271	45	10	6	7	4	1			344
Empire Compound .						1	1			2
Gem					5	1	4			10
Gem Empire							2			2
Hersey	2052	268	57	22	17	2	2	1	2	2,423
Hersey Detector						1	8	27	4	40
Keystone	62				1					63
King	80	3								83
Lambert	814	90	19		2					925
Nash	569	118	56		2					745
Niagara	1									1
Thomson	6	14	1							21
Torrent						1	2			3
Trident	574	34	1	1						610
Union	27	7		1						35
Watch Dog	348	20	16	4	1		1			390
Worthington	38	1	27	30	28	6	2			132
Worth-Disc....	758	36	22	11	12	4				843
Total ...	8899	2294	550	101	121	27	30	33	6	12,061

NEW HYDRANTS, 1918.

Bennett Street	Ludlow Hydrant
Fairgrove Avenue	Ludlow Hydrant
Farragut Street	Ludlow Hydrant
Pineview Avenue	Ludlow Hydrant
Rogers Street	Corey Hydrant
Stedman Street	Chapman Hydrant
Stedman Street	Ludlow Hydrant
Tyler Street	Corey Hydrant
White Street	Ludlow Hydrant

9 New Hydrants set 1918.

HYDRANTS CHANGED, 1918.

Location	Taken Out	Set
Central St., opp. Cady	Chapman	Ludlow
Central St., cor. Charles	Flush	"
Central St., opp. North	"	"
Central St., near Opera House	"	"
Central St., cor. Union	"	Corey
Concord St., cor. Pond	"	Ludlow
Fairfield St.	Smith	"
French St., near cor. Bridge ..	Chapman	"
High St., cor. Rogers	Ludlow	"
Lawrence St., opp. No. 466	Flush	"
Marshall St., near McIntire ..	"	"
McKinley Ave.	Ludlow	"
Middlesex, opp. Middlesex Park	Boston Machine .	Corey
North St., cor. Lawrence	Flush	Chapman
Palmer St., near Merrimack ..	Chapman	Smith
Pine St., cor. Bennet.....	Eddy	Ludlow
Rock St., cor. Mt. Vernon	Chapman	"
Saratoga St.	"	Eddy
Summer St., cor. South	Flush	Corey
Tyler St., below Hill's Block ..	"	"
Webber St.	Boston Post	"
Woodward Ave.	Chapman	Ludlow

22 Hydrants changed 1918.

HYDRANTS, JANUARY 1, 1919.

Kind	Flush	2 Noz.	3 Noz.	4 Noz.	Total
Boston Machine			166		166
Chapman		3	120	51	174
Coffin			1		1
Corey			62		62
Eddy			32	1	33
Fairbanks			19		19
Flush	222				222
Glanmorgan			1		1
Holyoke			1		1
Kennedy			1		1
Lowrey 7					7
Ludlow		29	625	14	638
Michigan			5		5
O'Brien			1		1
A. P. Smith			48		48
Perkins				1	1
Pratt & Cady			26		26
Walker			17		17
Totals 7	222	32	1,125	67	1,453

LOW SERVICE—WATER PIPE LAID DURING THE YEAR 1918.

Street	Location	Length of pipe in feet			
		4 in.	6 in.	8 in.	10 in.
"A" St.	Service to Winchester Laundry Co.	90.			
Anderson St.	Connecting ends		6.	137.	
Bennett St.	Connecting ends		316.		
Devine Ave.	Old end Ely to Pineview Ave.		57.		
Fairgrove A.	Princeton St. northerly		297.		
Farragut St.	Fourth Ave. westerly		122.		
Fourth Ave.	Endicott to Farragut St.			267.	
Market St.	Fire service to No. 91		10.		
Phebe Ave.	Old end northerly		168.		
Pineview Av.	Devine Ave. southerly		80.		
Pleasant St.	Rogers St. southerly		415.		
Rogers St.	Old end to City Line				38.
Stackpole St.	Fire service to St. John's Hos.		44.		
Stedman St.	Old end southerly		280.	1435.	
Upham St.	Old end easterly		169.		
White St.	Old end northerly to Emery Av.		201.		
		90.	2165.	1839.	38.

LOW SERVICE—LIST OF STOP GATES SET DURING THE YEAR 1918.

Street	Location	4 in.	6 in.	8 in.	12 in.
*"A" St.	61 ft. east of east line Puffer St., 11 ft. south of north line "A" St.	1	...	...	...
Central St.	8 ft. north of south line Tyler St., 12 ft. east of west line Central St. On hydrant ....	...	1	...	...
Central St.	4 ft. north of north line Charles St., 13 ft. east of west line Central St. On hydrant ....	...	1	...	...
Central St.	7 ft. north of north line Union St., 12 ft. east of west line Central St. On hydrant. ....	...	1	...	...
Central St.	5 ft. north of south line Cady St., 11 ft. east of west line Central St. On hydrant ....	...	1	...	...
Central St.	On north line Elm St., 17 ft. east of west line Central St. ....	...	...	...	1
Concord St.	9 ft. south of south line Pond St., 8 ft. east of west line Concord St. On hydrant ....	...	1	...	...
*Fairgrove A.	11 ft. south of north line Princeton st, 12 ft. east of west line Fairgrove Ave. ....	...	1	...	...
Farragut St.	On west line Fourth Ave., 12 ft. south of north line Farragut St. ....	...	1	...	...
Fourth Ave.	On north line Endicott St., 15 ft. east of west line Fourth Ave. ....	...	...	1	...
Lawrence St.	188 ft. south of south line Hudson St., 8 ft. west of east line Lawrence St. on Hydt. ....	...	1	...	...
*Market St.	117 ft. east of east line Palmer St., 17 ft. south of north line Market St.	1	...	...	...
*Middlesex St.	36 ft. west of east line Grosvenor St., 20 ft. south of north line Middlesex St. ....	...	1	...	...
Pleasant St.	On south line Rogers St., 13 ft. east of west line Pleasant St. ....	...	1	...	...
Stackpole St.	169 ft. west of west line Livermore St., 16 ft. south of north line Stackpole St. ....	...	...	1	...
Stedman St.	2 ft. south of east line Wilbur St., 13 ft. east of west line Stedman St. ....	...	1	...	...
		2	11	2	1

*Indicates Smith Gates.

LOW SERVICE—SMALL SIZE DISTRIBUTION
PIPE LAID DURING THE YEAR 1918.

Street	Kind	Location
Belmont Ave.	Ludlow	...On West side opp. Hovey St.

Street	Kind	Location
Belmont Ave.	Ludlow	...On West side 301 ft. south of Summit St.

Street	Location	Length of pipe in ft.		
		1 in.	2 in.	Total
Carmine St.	From end old pipe to Felton St.		608.	608.
Chamberlain St.	From Felton St. southerly.....	117.	206.	323.
Circuit Ave.	From Felton St. to No. 200.....	158.		158.
Felton St.	From Carmine St. southerly		305.	305.
Homestead Rd.	From Hildreth St. southerly and easterly		293.	293.
Stedman St.	From end 6 in. pipe southerly		403.	403.
Wilbur St.	From Stedman St. southerly	245.	209.	454.
		520	2024	2544

HIGH SERVICE—WATER PIPE LAID DURING THE YEAR 1918.

Street	Location	Length of pipe in feet		
		4 in.	6 in.	8 in.
Belmont Ave.	Old end southerly to Hovey St.			147.

HIGH SERVICE—LIST OF STOP GATES SET DURING THE YEAR 1919.

Street	Location	Size		
		4 in.	6 in.	8 in.
Belmont Ave.	42 ft. south of south line Hovey St., 11 ft. east of west line Belmont Ave. On hydrant	...	1	...

HIGH SERVICE—LIST OF STOP GATES RE- MOVED DURING THE YEAR 1918.

Belmont Ave.	301 ft. south of south line Summit St., 11 ft east of west line Belmont Ave. On hydrant	...	1	...
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LOW SERVICE—LIST OF HYDRANTS SET DURING THE YEAR 1918.

Street	Kind	Location
Bennett St.	Ludlow	...On West side 22 ft. south of Light Ave.
Central St.	"	...On West side opp. Tyler St. Changed from Flush.
" "	"	...On West side at Charles St. Changed from Flush.
" "	Corey	...On West side at Union St. Changed from Flush.
" "	Ludlow	...On West side opp. North St. Changed from Flush.
" "	"	...On West side opp. Cady St. Changed from Flush.
Concord St.	"	...On West side at Pond St. Changed from Flush.
Fairview Ave.	"	...On West side at No. 26.
Farragut St.	"	...On North side at Fourth Ave.
Lawrence St.	"	...On East side at No. 466 Changed from Flush.
Pineview Ave.	"	...On West side 52 ft. south of Devine Ave.
Rogers St.	Corey	...On North side at City Line.
Stedman St.	Ludlow	...On West side opp. Wither St.
" "	Chapman	...On West side at No. 203.
Teller St.	Corey	...On South side at Central St.
White St.	Ludlow	...On West side 30 ft. south of Emery Ave.

SUMMARY.

Low Service water pipe laid in 1918	4,132.	ft.
Low Service water pipe laid previous to 1918.	790,591.5	ft.
	794,923.5	ft.
Low Service water pipe removed in 1918	000.	ft.
Total Low Service water pipe in use Jan. 1, 1919		794,923.5 ft.
High Service water pipe laid in 1918	147.	ft.
High Service water pipe laid previous to 1918	52,193.	ft.
	52,340.	ft.
High Service water pipe removed 1918	000.	ft.
Total High Service water pipe in use Jan. 1, 1919		52,340. ft.
Total High and Low Service Jan. 1, 1919		847,263.5 ft.
Total pipe in use Jan. 1, 1919, in miles.....		160.46

LOW SERVICE.

HIGH SERVICE.

4"	34.197	feet	4"	1,507	feet
6"	447.817	"	6"	30,475.5	"
8"	161.720.3	"	8"	4,657.5	"
10"	31,308.5	"	10"	2,931	"
12"	71,228.8	"	12"	7,885	"
16"	26,235.9	"	16"	4,884	"
20"	8,659	"			
24"	9,194	"			
30"	4,563	"			
	794,923.5	"		52,340	"

Low Service Hydrants set in 1918.....	16
High Service Hydrants set in 1918	1
Low Service Hydrants removed in 1918.....	7
High Service Hydrants removed in 1918.....	1

	Size				
	4 in.	6 in.	8 in.	12 in.	
Low Service Stop Gates set in 1918	2	11	2	1	=16
Low Service Stop Gates removed in 1918 ...					
High Service Stop gates set in 1918		1			= 1
High Service Stop Gates removed in 1918 ...		1			= 1

Report of the City Engineer

OFFICE OF THE CITY ENGINEER,

LOWELL, MASS., January 1, 1919.

*To the Commissioner of Water Works and Fire
Protection:*

DEAR SIR:—

I have the honor to submit the forty-sixth annual report for the year ending December 31, 1918:

PUMPAGE.

Total Net Pumpage for 1918	2,764,748,745 gallons
Total Net Pumpage for 1917	2,353,368,177 gallons
Increase in 1918	411,380,568 gallons

CONSUMPTION.

Consumption in 1918	2,753,448,760 gallons
Consumption in 1917	2,365,101,081 gallons
Increase in 1918	388,347,679 gallons

The maximum pumpage for any one day was on Monday, August 5th, viz.:

At West Sixth Street Station	6,246,799 gallons
At Cook Wells Station	3,059,200 gallons
<hr/>	
Total	9,305,999 gallons

The maximum pumpage for one week was of the week of August 4th to August 10th, viz.:

At West Sixth Street Station	41,205,354 gallons
At Cook Wells Station	21,082,048 gallons
Total	62,287,402 gallons
High Service Pumpage for 1918	140,449,358 gallons
High Service Pumpage for 1917	93,953,972 gallons
Increase in 1918	46,495,386 gallons
Cost of Low Service Pumpage in 1918	\$30.91 per million gals.
Cost of Low Service Pumpage in 1917	\$22.06 per million gals.
Increase in 1918	\$ 8.85 per million gals.
Cost of High Service Pumpage in 1918	\$28.59 per million gals.
Cost of High Service Pumpage in 1917	\$22.83 per million gals.
Increase in 1918	\$ 5.75 per million gals.
Cost of Low Service Pumpage, exclusive of Cook Wells, in 1918	\$29.16 per million gals.
Total Cost of High Service Pumpage (Cost of Low Service plus Cost of High Service, ex- clusive of Cook Wells), in 1918	\$57.84 per million gals.
Total Cost of High Service Pumpage (Cost of Low Service plus Cost of High Service, ex- clusive of Cook Wells), in 1917	\$44.89 per million gals.
Increase in 1918	\$12.95 per million gals.

TABLE SHOWING QUANTITY PUMPED EACH MONTH AT THE SEVERAL STATION
DURING THE YEAR 1918.

Months	PUMPING STATIONS										Grand Totals	Net Totals
	Driven Wells				West Sixth Street							
	Cook Wells	Pawtucket Boulevard		Totals	Net Totals	Allis-Chalmers	High Service					
		Holly Pump	Kerr Turbine									
January	93,099,648	167,956,500	166,970,500	428,026,648	93,099,648	167,590,910	10,569,342	606,186,900	200,690,558			
February	95,184,320	141,678,000	140,832,000	377,695,320	95,184,320	143,473,993	10,414,138	531,583,451	238,658,313			
March	62,991,360	161,962,500	160,894,500	385,848,360	62,991,360	148,571,123	11,161,276	545,580,759	211,562,483			
April	46,017,280	164,515,500	163,311,500	373,844,280	46,017,280	160,403,498	11,499,194	545,746,972	206,120,778			
May	72,101,760	177,174,000	175,301,000	424,576,760	72,101,760	178,502,827	10,763,480	613,843,067	250,601,587			
June	56,531,840	177,241,500	175,832,500	409,605,840	56,531,840	186,192,307	11,074,361	606,872,511	242,724,147			
July	33,573,120	193,225,500	191,180,500	417,979,120	33,573,120	193,802,279	9,615,820	621,397,229	227,775,349			
August	70,582,272	188,661,000	185,422,000	444,665,272	70,582,272	188,811,206	13,202,154	646,678,632	279,393,478			
September	40,407,168	185,802,000	182,423,000	408,632,168	40,407,168	182,721,199	13,210,890	604,564,257	223,128,367			
October		206,446,050	202,377,050	408,823,100		201,145,232	14,106,106	624,074,438	201,145,232			
November	35,417,600	180,402,450	177,223,450	393,043,500	35,417,600	180,000,305	13,309,030	586,356,835	215,421,905			
December	62,482,880	164,628,000	162,138,000	389,248,880	62,482,880	165,140,618	11,523,551	565,913,052	227,623,498			
Totals	658,389,248	2,109,693,000	2,083,907,000	4,861,989,248	668,389,248	2,096,359,197	140,449,358	7,098,798,103	2,764,748,715			

TABLE SHOWING SOURCE OF SUPPLY, QUANTITY PUMPED, AND COST OF PUMPING AT THE SEVERAL STATIONS DURING THE YEAR 1918.

Pumping Station	Source of Supply—Well Water				Cost	
	525 Driven Wells at Pawtucket Boulevard	210 Driven Wells in Valley of River Meadow Brook	Distributing Mains of Low Service System	Totals in U. S. Gallons	Totals	Per Million Gallons
West Sixth Street—Low Service.....	2,096,359,497	.....	.....	2,096,359,497	\$30,220.14	14.42 —
High Service.....	.....	.....	140,449,358	140,449,358	4,015.40	28.59 —
Cook Wells .....	.....	668,389,248	.....	668,389,248	24,311.93	36.37 +
Lower Boulevard	2,083,907,000	.....	.....	2,083,907,000	30,922.17	14.84 —
Total Pumpage .....	.....	.....	.....	4,989,105,103	89,469.64	17.93 +
Deduct Quantity at Lower Boulevard	2,083,907,000	.....	140,449,358	2,224,356,358	.....	.....
Pumped by High Service.....	.....	.....	.....	.....	.....	.....
Net Pumpage .....	.....	.....	.....	2,764,748,745	89,469.64	32.36 +
Cost exclusive of High Service.....	.....	.....	.....	2,764,748,745	85,454.31	30.91 —
Cost exclusive of High Service and... Cook Wells .....	.....	.....	.....	2,096,359,497	61,142.31	29.16 —
Total Cost High Service Pumpage.....	.....	.....	.....	140,449,358	8,124.23	57.84 +

The following tables, showing the performance of the engines, depth and quantity of water in the Beacon Street Reservoir and Christian Street Reservoir, average temperature of the air and water at the Christian Street Reservoir, and the average monthly and daily consumption of water, have been calculated and compiled from the records kept by the engineers and gate-keeper.

TABLE SHOWING WORK DONE WITH ALLIS-CHALMERS ENGINE AT WEST SIXTH STREET PUMPING STATION, FOR EACH MONTH DURING THE YEAR 1918.

Months	No. of days Pumping	Average No. of hours Pumping per day	No. of hours Pumping per Month	No. of Strokes made per Month	Average No. of Strokes made per Minute	Average head including friction in feet	Quantity Pumped in U. S. Gallons	Average Quantity Pumped Per day in U. S. Gallons	No. Gals. of water pumped into res. per lb. of coal consumed	Duty lbs. 1 foot high with 100 lbs. coal used in Pumping only no deduction for ashes or clinkers	Duty on total coal consumed no deduction for ashes or clinkers
January	31	24-	744	1,205,690	27.01	162.69	167,590,910	5,403,158	938	126,710,039	126,008,161
February	28	24-	672	1,032,187	25.60	172.69	143,473,993	5,124,071	967	139,566,472	139,566,472
March	31	23-39	733	1,068,857	24.30	160.92	148,571,123	4,792,617	930	144,497,930	144,497,930
April	30	23-50	715	1,153,982	26.90	161.92	160,403,498	5,343,783	827	111,670,528	111,670,528
May	31	24-	744	1,284,193	28.75	190.30	178,502,827	5,785,156	688	109,356,969	109,356,969
June	30	23-54	717	1,339,513	31.14	193.17	186,192,307	6,203,410	626	100,529,915	100,261,206
July	31	24-	744	1,394,261	31.26	178.61	193,802,279	6,251,686	635	94,462,358	94,154,379
August	31	24-	744	1,358,354	30.42	193.17	188,811,206	6,099,684	750	120,859,418	120,859,418
September	30	24-	720	1,314,540	30.43	193.17	182,721,199	6,099,707	735	118,615,266	118,615,266
October	31	24-	744	1,447,088	32.41	178.71	201,145,232	6,483,556	828	123,488,520	123,488,520
November	30	24-	720	1,294,995	29.98	190.57	180,004,305	6,009,143	948	150,120,835	149,493,517
December	31	23-49	738	1,188,062	26.83	186.49	165,140,618	5,327,117	958	149,039,686	149,039,686
Totals and Average	365	23-44	8,735	15,081,723	28.77	180.05	2,096,359,497	5,743,451	797	119,731,304	119,626,263

TABLE SHOWING WORK DONE WITH WORTHINGTON HIGH SERVICE ENGINE
OF WEST SIXTH PUMPING STATION FOR EACH MONTH
DURING THE YEAR 1918.

Months	No. of days Pumping	Average No. of hours Pumping per day	No. of hours Pumping per Month	No. of Strokes made per month	Average No. of strokes made per Minute	Average head including friction in feet	Quantity Pumped per month in U. S. Gallons	Average Quantity Pumped per day in U. S. Gallons	No. Gals. of water pumped into res. per lb. total coal consumed	Coal in Pounds used when Pumping
January	30	22-59	689	754,953	17.82	67.35	10,569,342	352,311	261	40,328
February	28	23-30	663	743,867	18.80	57.35	10,414,138	371,933	251	41,602
March	30	23-23	725	797,234	18.32	69.12	11,161,276	360,041	250	44,633
April	31	24-	720	821,371	19.01	69.12	11,499,194	383,306	250	46,038
May	31	22-35	700	768,820	18.28	41.66	10,763,480	347,209	251	42,951
June	30	22-42	681	791,026	19.36	64.12	11,074,364	369,115	250	44,281
July	31	24-	744	686,845	15.38	81.38	9,615,830	310,188	248	38,865
August	31	24-	744	943,011	21.12	66.82	13,202,154	425,876	254	52,073
September	30	24-	720	943,635	21.82	66.82	13,210,890	440,363	253	52,276
October	31	24-	744	1,007,579	22.57	82.28	14,106,106	455,036	250	56,106
November	30	23-36	708	950,615	22.15	67.12	13,309,030	443,631	250	53,173
December	31	24-	744	823,111	18.43	85.72	11,523,554	371,727	251	46,081
Totals and Averages . .	364	23-35	8582	10,032,097	19.48	65.15	140,149,358	385,850	251	558,407

TABLE SHOWING WORK DONE WITH DEANE ENGINES AT COOK WELLS
PUMPING STATION, FOR EACH MONTH DURING THE YEAR 1918.

Months	No. of days Pumping	Average No. of hours Pumping per day	No. of hours Pumping per Month	No. of Strokes made Per Month	Average No. of Strokes made Per Minute	Average head including friction in feet	Quantity Pumped per month in U. S. Gallons	Average Quantity Pumped per day in U. S. Gallons	No. of Gallons of water pumped into dis. mains per lb. of coal consumed	Duty in lbs. 1 A. high with 100 lbs. total coal used no deduction for ashes or clinkers
January ..	31	24-	744	1,454,682	32.59	157.32	93,099,648	3,003,215	228	29,928,386
February .	28	24-	672	1,487,255	36.88	163.85	95,184,320	3,399,440	239	32,678,345
March	26	23- 7	601	984,240	27.39	164.06	62,991,360	2,422,745	248	34,027,101
April	18	22-43	409	719,020	29.30	160.99	46,017,280	2,556,515	259	34,800,615
May	31	24-	744	1,126,590	25.24	177.20	72,101,760	2,325,863	247	36,511,213
June	30	24-	720	883,310	20.45	185.27	56,531,840	1,884,395	220	34,040,391
July	17	22-42	386	524,580	22.65	177.41	33,573,120	1,974,889	202	29,989,520
August ...	31	23-54	741	1,102,848	24.80	182.10	70,582,272	2,276,847	206	31,308,853
Sept.	26	22-39	589	631,362	17.86	180.15	40,407,168	1,554,122	222	33,311,370
October ...	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
November .	18	21-30	384	553,400	24.02	173.95	35,417,600	1,967,644	187	27,071,663
December .	26	23-16	605	976,295	26.89	176.61	62,482,880	2,403,188	206	34,742,08
Totals and Averages .	282	23-23	6595	10,443,582	26.39	172.86	668,389,248	2,370,175	225	32,466,312

TABLE SHOWING WORK DONE WITH HOLLY HIGH DUTY ENGINE (CRANK AND FLY WHEEL) AT LOWER BOULEVARD PUMPING STATION, FOR EACH MONTH DURING THE YEAR 1918.

Months	No. of days pumping	Average No. of hours Pumping per day	No. of hours Pumping per Month	No. of strokes made per Month	Average No. of Strokes made per minute	Average head including friction in feet	Quantity Pumped per month in U. S. Gallons	Average Quantity Pumped per day in U. S. Gallons
December	31	23-48	738	1,119,710	25.28	57.62	167,956,500	5,417.951
November	28	23-52	668	944,520	23.56	56.82	141,678,000	5,059.928
October	31	23-32	729-30	1,079,750	24.67	55.38	161,962,500	5,224.597
September	30	23-52	716	1,096,770	25.52	56.89	164,515,500	5,483.850
August	31	23-56	742	1,181,160	26.53	58.09	177,174,000	5,715.290
July	30	23-52	716	1,181,610	27.50	58.15	177,241,500	5,908.050
June	31	23-59	743-30	1,288,170	28.87	58.35	193,225,500	6,233.080
May..	31	24-	744	1,257,740	29.17	58.09	188,661,000	6,085.839
April	30	24-	720	1,238,680	28.67	57.02	185,802,000	6,193.400
March	31	24-	744	1,376,307	30.83	59.15	206,446,050	6,659.550
February	30	23-	713	1,202,683	28.11	58.87	180,402,450	6,013.415
January	31	23-46	737	1,097,520	24.81	58.38	164,628,000	5,310.580
Totals and Averages	365	23-52	8711	14,064,620	26.91	57.74	2,109,693,000	5,779.981

TABLE SHOWING AMOUNT OF COAL USED FOR
ALLIS-CHALMERS ENGINE AT PUMPING
STATION, WEST SIXTH STREET,
DURING THE YEAR 1918.

Months	Coal Consumed			
	For starting Fires, in Pounds	When Pumping, in Pounds	For Banking Fires, in Pounds	Total in Pounds
January	1000	179,524	.....	180,524
February .....	.....	148,109	.....	148,109
March .....	.....	138,040	.....	138,040
April .....	.....	194,040	.....	194,040
May .....	.....	259,155	.....	259,155
June	800	298,489	.....	299,289
July	800	305,723	.....	306,523
August .....	.....	251,773	.....	251,773
September .....	.....	248,262	.....	248,262
October .....	.....	242,859	.....	242,859
November	800	190,642	.....	191,442
December .....	.....	172,397	.....	172,397
Totals	3400	2,629,016	.....	2,632,416

Gallons pumped per pound total coal consumed—797.

TABLE SHOWING AMOUNT OF COAL USED FOR
DEANE ENGINES AT PUMPING STATION,
COOK WELLS, DURING YEAR 1918.

Months	Coal Consumed			
	For starting Fires, in Pounds	When Pumping, in Pounds	For Banking Fires, in Pounds	Total in Pounds
January	408,292	.....	408,292
February	398,175	.....	398,175
March	253,385	.....	253,385
April	177,605	.....	177,605
May	291,948	.....	291,948
June	256,700	.....	256,700
July	165,700	.....	165,700
August	342,500	.....	.....
September	182,315	.....	342,500
October	182,315
November	189,300	.....	189,300
December	303,100	.....	303,100
Totals	2,969,020	.....	2,969,020

Gallons pumped per pound of total coal consumed—225.

TABLE SHOWING AMOUNT OF COAL USED FOR
HOLLY ENGINE AND KERR TURBINE AT
PUMPING STATION, LOWER BOUVLEVARDE,
DURING THE YEAR 1918.

Months	Coal Consumed				Gals. pumped into conduit per lb. total coal consumed.
	For starting Fires, in Pounds	When Pumping, in Pounds	For Banking Fires, in Pounds	Total in Pounds	
January .....	.....	259,580	.....	259,580	644
February .....	.....	263,350	.....	263,350	535
March	1600	192,205	.....	193,805	830
April .....	.....	217,670	.....	217,670	751
May .....	.....	218,315	.....	218,315	803
June	1000	211,180	.....	212,180	829
July .....	.....	231,595	.....	231,595	826
August	1000	210,410	.....	211,410	877
September	1000	205,555	.....	206,555	883
October .....	.....	270,005	.....	270,005	749
November	1500	246,555	.....	248,055	715
December	1000	232,590	.....	233,590	694
Totals	7100	2,759,010	.....	2,766,110	753

WEST SIXTH STREET PUMPING STATION, ALLIS-CHALMERS
ENGINE RUNNING EXPENSES FOR THE YEAR 1918.

Pay of Engineers and Firemen.....	\$13,916.71
29 627-2240 tons (1917) coal at \$11.00.....	322.08
425 00-2240 tons (1918) coal at \$11.27.....	4,789.65
809 700-2000 tons (1918) coal at \$11.49.....	9,293.68
Engine Repairs	72.55
Boiler Repairs	466.93
Elec. Engine Repairs	102.48
Supplies	942.64
Sundries	313.42

Total \$30,220.14

Cost of pumping water into reservoir, per million gallons, \$14.82—

Cost of pumping water 1 foot high, per million gallons, \$0.08 00/100

WEST SIXTH STREET PUMPING STATION. HIGH SERVICE
ENGINE RUNNING EXPENSES FOR THE YEAR 1918.

Pay of Engineers and Firemen.....	\$ 932.53
6 426-2240 tons of coal (1917) at \$11.00.....	68.11
89 1449-2240 tons of coal (1918) at \$11.27.....	1,012.83
171 320-2000 tons of coal (1918) at \$11.49.....	1,965.45
Supplies	36.48

Total \$4,015.40

Cost of pumping water into reservoir, per million gallons, \$28.59—

Cost of pumping water 1 foot high, per millions gallons, \$0.43 88/100

COOK WELLS PUMPING STATION, DEANE ENGINES
RUNNING EXPENSES FOR THE YEAR 1918.

Pay of Engineers and Firemen.....	\$8,495.88
45 547-2240 tons of coal (1917) at \$10.75.....	486.61
738 440-2240 tons of coal (1918) at \$10.62.....	7,844.49
607 650-2000 tons of coal (1918) at \$10.60.....	6,440.84
Engine Repairs	82.74
Boiler Repairs	500.44
Supplies	232.29
Sundries	228.64

Total \$24,311.93

Cost of pumping water into distributing mains, per million gallons,
\$36.37+

Cost of pumping water 1 foot high, per million gallons, \$0.21 03/100

LOWER BOULEVARD PUMPING STATION, HOLLY ENGINE AND
KERR TURBINE RUNNING EXPENSES FOR
THE YEAR 1918.

Pay of Engineers and Firemen.....	\$13 821.80
60 00-2240 tons of coal (1917) at \$11.00.....	660.00
462 780-2240 tons of coal (1918) at \$12.08.....	5,587.57
788 740-2000 tons of coal (1918) at \$11.27.....	8,889.05
Engine Repairs	389.78
Boiler Repairs	696.35
Supplies	797.55
Sundries	80.07

Total \$30,922.17

Cost of pumping water into conduit, per million gallons, \$14.84—

Cost of pumping water 1 foot high, per million gallons, \$0.25 7/10

BEACON STREET RESERVOIR.

Months	Depth in Feet	Quantity in U. S. Gallons	Temperature in Degrees	
			Of Water	Of Air
January	16.04	23,981,488	31.2	18.4
February	15.30	22,795,546	30.0	24.3
March	15.09	22,446,830	32.4	34.9
April	17.26	25,942,443	41.9	46.4
May	18.53	28,053,661	57.6	63.4
June	18.53	28,053,661	62.2	65.0
July	18.51	28,001,761	66.4	71.8
August	18.85	28,590,964	66.5	67.6
September	20.01	30,514,527	66.7	59.8
October	19.52	29,706,897	52.0	53.2
November	18.03	27,225,859	42.6	40.9
December	19.44	29,566,912	36.9	30.6

CHRISTIAN STREET RESERVOIR.

Months	Elevation	Quantity in U. S. Gallons	Temperature in Degrees	
			Of Water	Of Air
January				
February				
March				
April				
May 27d	204.01	3,363,650	42.3	63.4
June 30d	204.45	3,462,989	45.2	65.0
July 18d	206.31	3,816,725	46.5	71.8
August 31d	204.90	3,544,454	51.0	67.6
September 30d ..	206.65	3,901,810	61.2	59.8
October 13d	196.44	1,817,235	56.0	53.2
November 21d ...	196.44	1,817,235	53.7	40.9
December 27d ...	203.72	3,304,090	55.5	30.6

TABLE SHOWING THE AVERAGE MONTHLY
AND DAILY CONSUMPTION OF WATER
FOR THE YEAR 1918.

Months	Gallons per month	Gallons per day
February	256,366,135	8,269,875
January	236,023,283	8,429,403
March	219,712,781	7,087,509
April	200,905,510	6,696,850
May	246,357,714	7,947,023
June	242,791,513	8,093,050
July	233,471,076	7,531,325
August	252,188,391	8,135,109
September	223,115,757	7,437,192
October	207,200,861	6,683,899
November	210,753,718	7,025,124
December	224,562,021	7,243,936
Totals and Averages.	2,753,448,760	7,544,243

The following table shows the average daily consumption of water, in gallons, for each month and each year since the installation of the system.

AVERAGE DAILY CONSUMPTION OF WATER IN GALLONS FOR EACH MONTH AND YEAR FROM JANUARY, 1873, TO DECEMBER, 1918, INCLUSIVE.

Years	MONTHS												For the Year
	January	February	March	April	May	June	July	August	Sept.	October	November	December	
1873	308,777	373,437	327,321	356,148	430,301	569,770	836,215	588,634	571,621	531,022	480,646	591,202	511,462
1874	633,810	667,770	638,840	609,470	708,760	919,830	977,360	895,820	880,880	760,560	750,060	890,220	789,206
1875	1,211,180	1,377,880	1,092,070	920,810	1,061,770	1,314,750	1,389,560	1,260,070	1,248,470	1,117,280	1,130,360	1,549,500	1,222,300
1876	1,484,980	1,527,830	1,325,790	1,073,602	1,275,180	1,554,764	2,011,610	1,662,020	1,539,326	1,348,380	1,193,376	1,805,810	1,484,882
1877	1,993,090	1,616,882	1,443,180	1,291,636	1,455,870	1,780,113	1,767,710	1,758,760	1,906,975	1,501,890	1,496,773	1,560,420	1,431,360
1878	2,038,990	1,894,890	1,683,690	1,287,310	1,824,140	1,760,330	2,262,500	1,813,970	1,878,048	1,643,400	1,515,424	1,801,850	1,784,960
1879	2,407,950	2,241,030	1,921,940	1,716,990	2,020,250	1,991,590	2,133,170	2,050,340	1,908,050	1,950,330	1,756,600	2,178,000	2,023,200
1880	1,977,760	2,144,660	1,933,610	1,839,800	2,223,670	2,486,780	2,438,080	2,192,330	2,408,940	2,268,130	2,229,350	2,571,600	2,252,197
1881	3,151,280	3,051,550	2,245,410	2,222,330	2,223,590	2,281,370	2,383,280	2,172,830	2,350,290	2,205,760	2,211,800	2,629,910	2,622,615
1882	2,883,560	2,809,540	2,263,290	2,163,990	2,203,580	2,774,220	3,220,610	3,220,780	2,651,590	2,434,130	2,371,830	3,063,920	2,862,710
1883	3,341,656	3,068,900	2,893,330	2,436,600	2,730,670	2,907,920	2,988,780	3,166,500	3,111,910	2,806,130	2,618,010	3,334,160	3,016,040
1884	3,600,750	3,032,120	3,025,910	2,513,700	2,620,820	3,127,330	3,185,420	3,303,190	3,243,620	3,567,880	3,125,147	3,547,620	3,563,220
1885	4,137,730	4,924,980	3,907,890	3,103,350	2,996,500	3,413,140	3,515,920	3,922,610	3,693,650	3,440,450	3,516,680	1,408,650	3,957,650
1886	4,527,610	4,927,900	4,213,570	3,490,590	3,116,380	3,903,860	4,084,170	3,922,610	4,200,049	3,394,148	3,672,885	1,480,818	4,319,164
1887	5,470,290	4,762,659	4,276,024	3,707,956	4,222,327	4,300,516	4,522,064	4,320,440	4,367,616	4,378,843	4,512,318	5,131,297	4,633,165
1888	6,611,570	6,707,935	5,305,426	4,213,317	4,241,156	4,836,189	4,868,093	1,616,338	4,668,705	4,349,178	4,266,827	4,560,882	5,373,336
1889	4,889,917	5,495,132	4,344,191	4,139,759	4,516,328	4,738,913	4,919,008	4,769,079	5,671,520	5,380,569	5,071,790	6,674,367	5,919,692
1890	5,034,449	5,317,487	5,037,524	4,697,240	4,692,172	5,231,919	6,101,724	5,533,936	6,179,573	5,747,054	5,661,719	5,823,698	6,074,263
1891	6,346,284	6,049,030	5,668,225	5,292,180	5,530,909	6,076,131	6,191,190	6,167,698	6,336,374	6,290,239	5,613,792	5,899,595	6,816,943
1892	5,911,281	6,614,450	6,023,591	5,340,879	5,910,870	6,330,711	6,796,530	6,716,621	6,194,761	6,415,510	5,990,053	7,325,056	6,568,170
1893	8,659,870	8,888,586	6,998,141	5,646,919	6,154,297	6,915,305	7,104,453	6,571,033	6,190,377	5,821,950	5,909,001	6,550,504	6,922,092
1894	7,268,744	7,817,660	6,580,717	6,014,810	6,452,212	7,033,375	7,032,587	7,313,446	7,153,030	6,674,267	6,219,076	7,119,614	6,933,306
1895	8,280,484	8,318,300	6,469,630	6,034,913	6,452,212	7,033,375	7,032,587	7,058,722	6,197,896	5,970,660	5,956,762	6,814,985	6,594,364
1896	7,422,186	7,050,337	6,645,162	6,723,680	7,034,685	7,093,227	7,407,605	6,353,958	6,348,176	6,301,085	6,499,027	6,898,918	6,721,564
1897	7,769,816	7,244,795	6,232,698	6,202,828	6,395,113	6,612,048	7,143,328	6,970,647	6,743,119	6,300,619	6,128,599	6,965,349	7,059,631
1898	7,417,719	8,114,248	6,803,182	6,554,963	6,551,731	8,508,101	8,664,229	7,196,128	7,002,017	7,037,015	6,797,952	6,838,218	7,286,205
1899	7,511,163	8,127,419	8,024,115	7,665,888	7,734,911	8,037,993	8,696,110	8,268,526	8,138,836	7,386,297	7,492,997	7,844,533	7,893,336
1900	8,266,601	9,055,112	8,260,895	6,914,082	6,580,172	7,083,342	7,963,332	6,766,772	6,514,839	6,183,286	5,747,730	6,197,736	5,729,325
1901	6,171,220	6,114,801	5,651,749	5,746,046	5,797,401	6,217,117	6,083,101	5,963,910	5,161,552	5,107,818	4,771,831	5,969,016	5,266,823
1902	6,160,966	6,054,616	5,115,198	5,147,423	5,581,932	5,121,402	5,563,775	5,018,208	4,936,025	4,809,428	4,613,355	5,112,581	

**AVERAGE DAILY CONSUMPTION OF WATER IN GALLONS FOR EACH MONTH
AND YEAR FROM JANUARY, 1873, TO DECEMBER, 1918, INCLUSIVE—Continued.**

Years	Months												For the Year
	January	February	March	April	May	June	July	August	Sept.	October	November	December	
1904	6,655,276	7,188,622	5,554,904	4,791,851	5,220,707	5,562,331	5,576,895	5,136,152	5,417,024	4,940,185	4,580,887	5,257,670	5,485,323
1905	5,777,996	6,857,608	5,525,104	5,316,825	5,283,217	5,152,313	5,555,262	5,819,160	5,025,355	5,447,880	4,983,105	5,034,701	5,474,202
1906	4,834,565	5,142,265	5,001,817	4,950,731	5,025,778	5,074,773	5,391,923	5,440,761	5,486,986	4,980,724	4,398,655	5,269,259	5,083,856
1907	5,812,515	6,967,163	5,996,990	5,089,614	5,485,391	5,640,334	5,674,592	6,046,145	5,414,610	5,198,286	4,492,525	4,587,374	5,526,118
1908	4,892,197	6,303,981	5,126,110	4,847,459	4,879,046	5,597,233	6,130,861	5,027,742	5,420,566	5,647,718	4,574,252	4,607,084	5,250,367
1909	4,994,704	5,025,674	4,781,957	4,846,081	4,947,820	5,501,361	6,114,545	6,167,967	5,470,110	5,137,179	4,863,788	5,000,414	5,240,385
1910	5,527,751	5,580,827	5,110,820	5,144,907	5,188,944	5,317,145	6,521,061	6,087,138	5,563,421	5,234,485	4,787,436	5,234,080	5,442,967
1911	5,237,816	5,432,082	5,298,391	5,246,301	6,134,973	6,040,921	6,917,779	5,103,294	4,920,793	4,428,730	4,246,149	4,240,112	5,272,705
1912	6,358,297	6,561,176	5,284,140	4,688,407	4,995,391	5,575,438	6,486,243	5,431,269	4,878,253	4,671,007	4,603,420	4,917,829	5,369,405
1913	4,866,972	5,359,348	5,024,197	4,944,870	5,370,378	6,882,636	7,169,715	6,822,676	5,933,963	5,790,277	5,740,322	5,645,862	5,798,652
1914	6,352,604	6,735,824	5,697,707	5,109,164	5,924,982	6,720,431	6,172,412	5,837,250	6,438,210	5,951,984	5,419,522	5,508,103	5,983,614
1915	5,573,201	5,494,049	5,262,766	5,097,062	5,129,916	5,551,194	5,193,378	5,258,356	6,133,417	5,516,235	5,565,839	5,380,197	5,427,382
1916	5,735,258	5,899,397	6,084,883	5,873,077	6,150,601	6,069,636	6,392,772	6,663,611	6,396,882	6,154,035	5,805,068	5,907,239	6,096,074
1917	6,430,319	6,311,904	6,160,132	5,976,292	5,883,830	6,126,487	7,249,137	7,678,877	6,420,848	6,156,959	6,391,974	6,891,381	6,479,729
1918	8,269,875	8,429,403	7,087,509	6,696,850	7,947,023	8,093,050	7,531,325	8,135,109	7,437,192	6,683,899	7,025,124	7,243,936	7,544,243

SUMMARY OF STATISTICS.

FOR THE YEAR ENDING DECEMBER 31, 1918.

In form recommended by the New England Water Works
Association.

LOWELL WATER WORKS.

LOWELL, MIDDLESEX COUNTY, MASSACHUSETTS.

GENERAL STATISTICS.

Population by census of 1918. estimated, 125,000.

Date of construction. 1870 to 1873.

Date of construction. High Service, 1881.

Date of construction. Driven Wells, 1893 to 1912.

By whom owned? The City of Lowell.

Source of supply: Two hundred ten (210) driven wells in the valley of
River Meadow Brook, and five hundred twenty-five (525) driven
wells at Pawtucket Boulevard.

Mode of supply: Pumping to reservoir and pumping direct.

PUMPING STATISTICS.

1. Builders of Pumping Machinery.

AT WEST SIXTH STREET STATION:

One engine, capacity 5,000,000 gallons in twenty-four hours, Henry
R. Worthington.

One engine, capacity 500,000 gallons in twenty-four hours, Henry
R. Worthington.

One engine, capacity 8,000,000 gallons in twenty-four hours, Allis-
Chalmers Company.

AT COOK WELLS STATION, TEMPORARY PUMPS:

One engine, capacity 3,000,000 gallons in twenty-four hours, The
Deane Steam Pump Company.

One engine, capacity 3,000,000 gallons in twenty-four hours, The
Deane Steam Pump Company.

AT LOWER BOULEVARD STATION:

- One engine, capacity 8,000,000 gallons in twenty-four hours. The
Holly Manufacturing Company.
- One engine, capacity 8,000,000 gallons in twenty-four hours. The
Holly Manufacturing Company.
- One engine, capacity 7,000,000 gallons in twenty-four hours. The
Kerr Turbine Company.
- One engine, capacity 10,000,000 gallons in twenty-four hours, The
Kerr Turbine Company.
- One engine, capacity 3,000,000 gallons in twenty-four hours, Henry
R. Worthington.
- One engine, capacity 3,000,000 gallons in twenty-four hours, Henry
R. Worthington.

AT UPPER BOULEVARD STATION, TEMPORARY PUMPS:

2. Descriptions of fuel used: $\left\{ \begin{array}{l} \text{a. Kind. Bituminous.} \\ \text{b. Brand of coal. New River.} \\ \text{c. Average price of coal per gross ton} \\ \text{delivered, \$11.92.} \\ \text{d. Percentage of ash.} \\ \text{e. Wood. price per cord.} \end{array} \right.$
3. Coal consumed for the year, 8,925,953 pounds.
4. Pounds of wood $\div 3 =$ equivalent amount of coal.
5. Total equivalent coal consumed for the year (3) + (4) 8,925,953
pounds.
6. Total pumpage for the year, 4,989,105,103 gallons.
7. Average static head against which Low Service pumps at West
Sixth Street work, 169.16 feet.
Average static head against which pump at Lower Boulevard
works, 46.31 feet.
8. Average dynamic head against which pumps work:
- | | |
|--------------------------------------|--------|
| West Sixth Street, Low Service..... | 189.05 |
| West Sixth Street, High Service..... | 65.15 |
| Lower Boulevard | 57.74 |
9. Number of gallons pumped per pound of equivalent coal (5) = 559.

10. Cost of pumping per million gallons, figured on pumping station expenses, viz., \$89,469.64, \$17.93.
11. Cost of purifying per million gallons, figured on filter expenses, viz., \$11,188.86, \$5.37.—

STATISTICS OF CONSUMPTION OF WATER.

1. Estimated total population at date, 125,000.
2. Estimated population on lines of pipe, 125,000.
3. Estimated population supplied, 125,000.
4. Total consumption for the year, 2,753,448,760 gallons.
5. Passed through meters, 1,609,489,282 gallons.
6. Percentage of consumption metered, 58.45.
7. Average daily consumption, 7,544,243 gallons.
8. Gallons per day to each inhabitant, 60.35.
9. Gallons per day to each consumer, 60.35.
10. Gallons per day to each tap, 539.45.
11. Cost of supplying water per million gallons, figured on total maintenance (item C. C.), \$78.17.
12. Total cost of supplying water per million gallons, figured on total maintenance and interest on bonds, \$90.88.

STATISTICS RELATING TO DISTRIBUTION SYSTEM.

Mains.

1. Kind of pipe, cast iron.
2. Sizes, 4 inches to 30 inches.
3. Extended 4,279 feet during the year.
4. Total now in use, 160.46 miles.
5. Length of pipe less than 4 inches diameter, 3 miles, more or less.
6. Number of hydrants added during the year (public and private), 9.
7. Number of hydrants (public and private) now in use, 1,455.
8. Number of stop gates added during the year, 16.
9. Number of stop gates now in use, 2,126.
10. Number of stop gates smaller than 4 inches, 48.
11. Number of blow-offs, 33.
12. Range of pressure on mains, 27 lbs. to 82 lbs., Low Service.

SERVICES.

13. Kind of pipe, lead, lead-lined iron, iron and tin-lined iron.
14. Sizes, $\frac{5}{8}$ in. to 8 in.
15. Extended 5,363 feet.
16. Total now in use, 106.08 miles.
17. Number of Service Taps added during the year, 112.
18. Number now in use, 13,985.
19. Average length of service, 47.67 feet.
20. Average cost of service for the year, \$43.84.
21. Number of meters added, 172.
22. Number now in use, 12,061.
23. Percentage of services metered, 86.3%.
24. Percentage of receipts from metered water ($B \div C$), 95.5.

Respectfully submitted,

STEPHEN KEARNEY,
City Engineer.

ANNUAL REPORT
OF THE
BIRTHS, MARRIAGES
and DEATHS
OF THE
CITY OF LOWELL



FOR THE YEAR

1918

CITY OF LOWELL

OFFICE OF THE CITY CLERK, May 27, 1919

To the Municipal Council,

GENTLEMEN :

The annual report of Births, Marriages and Deaths for the year 1918, as of record in this office, is respectfully submitted as follows :

BIRTHS

Wards	1	2	3	4	5	6	7	8	9	Total
Whole Number	198	531	310	329	344	751	257	262	233	3215
Males	101	312	156	174	165	379	131	141	108	1667
Females	97	219	154	155	179	372	126	121	125	1548
American Parents	75	66	121	89	80	187	102	141	105	966
Foreign Parents	78	407	111	196	219	336	83	58	65	1553
American Father										
Foreign Mother	22	24	39	25	27	107	34	30	35	343
Foreign Father										
American Mother	23	34	39	19	18	121	38	33	28	353
Twins	3	1	5	4	8	8	4	1	2	36

In addition there are recorded 67 births, the parents being residents elsewhere, and 31 births occurring elsewhere the parents being residents of Lowell. Still-births not included 181.

MARRIAGES

Twelve hundred and one marriages were recorded for the year 1918, ten hundred and seventy being solemnized in Lowell and one hundred thirty-one solemnized elsewhere.

MARRIAGES BY MONTHS

January.....103	May..... 88	September.....130
February 84	June..... 163	October 93
March..... 51	July..... 93	November..... 113
April..... 96	August .....111	December..... 76

NATIONALITY OF PARTIES

	Grooms	Brides
United States.....	626	663
Canada.....	173	167
Greece.....	137	122
Austria and Russia.....	68	64
Portugal, Azores and Madeira.....	57	54
Ireland.....	50	63
England.....	36	28
Sweden.....	14	12
Scotland.....	10	13
Italy.....	9	3
Turkey ...	4	1
Other Countries.....	17	10

Grooms under 21 years, 93; brides under 18 years, 35.

DEATHS

The number of deaths in the city returned and recorded in 1918, exclusive of still-births, was 2473; males 1270, females 1203; eighty-five of this number being non-residents. The deaths of 157 Lowell residents who died elsewhere being also recorded.

Detailed statistics may be obtained in the report of the Board of Health.

Very respectfully,

STEPHEN FLYNN,

City Clerk.

In Municipal Council, May 27, 1919.

Received and ordered on file.

STEPHEN FLYNN,

City Clerk.

FORTY-FIRST ANNUAL REPORT
OF THE
BOARD OF HEALTH
OF THE
CITY OF LOWELL



FOR THE YEAR

1918

ORGANIZATION, 1918

BOARD OF HEALTH

PIERRE BRUNELLE, M. D., Chairman
THOMAS F. CARROLL, M. D.
JOHN E. DRURY

HEALTH DEPARTMENT OFFICERS

Office Employees

MARSHALL L. ALLING, M. D., Bacteriologist
FREDERICK A. BATES, Agent
SPENCER BROWN, Fumigator
JOHN N. DRURY, M. D., Tuberculosis Examining Physician
MARY FINNEGAN, Child Welfare Nurse
WILLIAM A. JOHNSON, M. D., Physician
BERTHA E. MULVEY, R. N., Tuberculosis Nurse
KATHERINE W. SNOW, Registrar
LOIS A. TITCOMB, Child Welfare Nurse

INSPECTORS

FRANCIS J. O'HARE, Inspector of Contagious Diseases
STEPHEN GARRITY, Plumbing Inspector
WILLIAM H. CONNORS, Tenement House Inspector
CLEMENT A. HAMBLET, M. D. V., Inspector of Meats and
Provisions
JOHN KEARNEY, Health Inspector

MILK DEPARTMENT

MELVIN F. MASTER, B. S., Milk Inspector
JOHN J. COUGHLIN, Collector of Samples

PRIVATE SCHOOL PHYSICIANS

DR. HOWARD W. JEWETT,
Resigned for war service.
Succeeded by
DR. JOHN N. DRURY
DR. RODRIGUE MIGNAULT
DR. FREDERICK P. MURPHY
DR. RALPH C. STEWART

LOWELL, MASS., JAN. 1, 1919.

*To the Honorable Mayor and Members of the Municipal Council
of the City of Lowell.*

GENTLEMEN:—

The Board of Health herein respectfully presents its forty-first annual report.

Diseases Dangerous to Public Health

	Number Cases	Deaths
Scarlet Fever	99	4
The mortality from Scarlet Fever was 4%		
Diphtheria	186	17
The mortality from diphtheria was 9%		
Measles	501	8
Infantile Paralysis	7	5
Whooping Cough	59	7
Cerebro-Spinal Meningitis	19	9
Mumps	4	0
Typhoid Fever	21	2

The fewest number of cases and deaths from Typhoid Fever ever reported at the Board of Health Office.

Tuberculosis	256	182
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The reports of the Tuberculosis Examining Physician at the Tuberculosis Clinic and the Tuberculosis Nurse are hereby presented as follows, showing the work done during the year by the Board of Health in their efforts to stamp out Tuberculosis:—

REPORT OF EXAMINING PHYSICIAN FOR TUBERCULOSIS CLINIC

LOWELL, MASS., JAN. 1, 1919.

*Board of Health,
Lowell, Mass.*

GENTLEMEN:—

I have the honor to submit a report of the work done by me as Examining Physician from Jan. 1st, 1918 to Dec. 31st, 1918:—

Total Number of Examinations	298
Total Number new cases	180
Incipient cases, of Tuberculosis	28
Moderately advanced cases of tuberculosis	48
Advanced cases of Tuberculosis	35
Arrested cases of Tuberculosis	7
Exposed cases of Tuberculosis	110
Suspicious cases of tuberculosis	37
Non-Tubercular cases	33

COMMENTS

The attendance at the clinic continues to show a marked increase in the number of new cases each year.

1915	58 new cases
1916	70 " "
1917	105 " "
1918	180 " "

A new work was started the past year of examining children whose parents were suffering from Pulmonary Tuberculosis. 110 children were examined. This work we consider most important as all authorities agree Pulmonary Tuberculosis starts during childhood, and the great majority of all the children examined were infected. These children should be carefully watched during their school life, and if possible should have the advantage of open air schooling and special instruction in physical culture.

The clinic work has been greatly aided by the two additional Board of Health nurses, and by Miss Roche of the Lowell Guild.

Respectfully submitted,

JOHN N. DRURY, M. D

REPORT OF TUBERCULOSIS NURSE

LOWELL, MASS., JAN. 1, 1919.

Board of Health,
Lowell, Mass.

GENTLEMEN :—

Following is a report of work done by me from Jan. 1, 1918 to Dec. 31, 1918, as Tuberculosis Nurse for the Health Department :—

Number of cases examined	298
New Cases	180
Old Cases	118
Incipient Cases	28
Moderately Advanced Cases	48
Advanced Cases	35
Exposed Cases	110
Arrested Cases	7
Non-Tubercular	33
Number of cases at the following sanatoria	
Rutland	6
North Reading	28
Lakeville	3
Westfield	13
Chelmsford St. Hospital, Lowell	14
St. John's Hospital, Lowell	1
Lawrence Tb. Hospital	9
Lynn Tb. Hospital	4
Clinton Tb. Hospital	2
Boston Consumptives' Hospital	1
Cambridge Tb. Hospital	3
Number of deaths from Tuberculosis	158
Number of Deaths that were under supervision	42
Number of deaths that were not under supervision	116
Number of cases discharged from the Training Camps on account of Tuberculosis	11
Under supervision	5
Not under supervision	6
Number of visits made during the year	1640
Ophthalmia Cases	13
Number of Visits made (Ophthalmia Cases)	140

No visits were made at homes of tuberculosis patients from Sept. 27, 1918 to Oct. 27, 1918, as I worked at the Lowell Guild during Influenza Epidemic.

Respectfully submitted

BERTHA E. MULVEY, R. N.

The foregoing report on Tuberculosis would indicate that most, if not all the room space of the Contagious Hospital buildings off West Meadow Road, when finished, and ready for occupancy will be taken up by persons so affected.

On November 14, 1918 the Trustees of the Lowell Corporation Hospital served the following notice to the City of Lowell:—

“At a meeting of the Trustees of the Lowell Corporation Hospital, held Nov. 13th, it was voted to discontinue the contagious ward, which has been maintained by them for a good many years, Dec. 1st. After the above date any contagious cases will will have to be cared for by the City.”

Consequently the Cottage on the Chelmsford St. Hospital grounds, was prepared and pressed into service for the caring of people ill with contagious diseases, other than Tuberculosis. It contains six rooms, with space for a dozen beds. Knowing that on several occasions the contagious wards of the Lowell Hospital above referred to have been overcrowded, overflowing in fact, it is apparent that the accommodations which the city now has for diphtheria, scarlet fever, cerebro-spinal Meningitis, infantile paralysis, influenza, etc., are too limited for security in case of a serious epidemic.

We urgently recommend, therefore, the immediate construction of a building such as has already been submitted by plan and approved by the State Department of Health for the reception of persons having diphtheria, scarlet fever and other diseases dangerous to the public health.

	Cases Reported	Deaths
Ophthalmia Neonatorum	45	0

During the year two child welfare nurses were added to the personnel of the department, reports of whose work are hereby given:—

REPORT OF CHILD WELFARE NURSES, for 1918.

LOWELL, MASS., JAN. 1, 1919.

*Board of Health,
Lowell, Mass.*

GENTLEMEN :—

Following is a report of visits made by me from July 15, 1918
to Dec. 31, 1918:—

New Cases Visited	462
Revisited	133
Total Number of visits	595
Ophthalmia Neonatorum	8
Ophthalmia Neonatorum Revisited	105
Infants' Deaths	27
Still Births	10

Worked at Lowell Guild from Sept. 28 to Oct. 28, 1918,
during the Influenza Epidemic.

Yours respectfully,

MARY FINNEGAN, R. N.
Child Welfare Nurse.

LOWELL, MASS., JAN. 1, 1919.

*Board of Health,
Lowell, Mass.*

GENTLEMEN :—

Following is a report of visits made by me from July 15, 1918 to Dec. 31, 1918 inc.:—

New Cases	489	
Revisited	146	
		<hr/>
Total		635
Ophthalmia Neonatorum Cases	12	
Revisits Neonatorum Cases	61	
		<hr/>
Total Visits Ophthalmia		73
Infants Deaths	25	
Still Births	10	

Worked at Lowell Guild from Sept. 28 to Oct. 28, 1918, during Influenza Epidemic.

Yours respectfully,

LOIS A. TITCOMB, R. N.
Child Welfare Nurse.

INFLUENZA

	Cases Reported	Deaths Influenza	Deaths from Pneumonia
Sept.	1645	38	66
Oct.	5012	106	297
Nov.	133	10	22
Dec.	604	9	41
	<hr/> 7394	<hr/> 163	<hr/> 426

Judged by the morbidity and mortality, the recent pandemic of Influenza was the most extensive that has occurred in modern times. There never was an outbreak in the City of Lowell that destroyed so many of her people within so short a time. Robust individuals seemed to be very susceptible, perhaps on account of greater exposure. In fact 39% of those who died from Influenza and Pneumonia were between the ages of 25 and 40. During the months of Sept., Oct., Nov. and Dec., the people died at the rate of thirty-two per thousand. The more crowded sections suffered most, likely due to greater contact between the well and the sick; likely due to living under greater stress, thereby diminishing the resistance to infection. Better homes afford more comfort, more sunshine, which tend generally to well-being.

On Sept. 20th, according to reports made at the Board of Health office by physicians, the first cases made their appearance here, although the disease did not become a reportable one to the State Department of Health until Oct. 4th. In a few days the disease increased rapidly to an epidemic. The first wave of the epidemic here may be set from Sept. 23d to Oct. 22d, with a quiescence during November, and until Dec. 26th, when there was a slight recrudescence of 121 cases.

The most important information authorities have in regard to influenza from a practical standpoint in their efforts to suppress it, is its mode of transference. It is spread directly from person to person. Highly contagious in the early stages (when often it is not seriously taken as such by the individual) the influenza bacillus is found in the secretions of the nose, throat, and respiratory tract. The danger by droplet infection when sneezing or coughing in large gatherings or mass meetings, during a pandemic of this kind is very great, as mild cases and carriers are not

recognized; also by objects recently mouthed, such as the public drinking cup or glass; danger from which sources *cannot be minimized*.

During the run of the epidemic the Board of Health held daily and sometimes twice daily meetings. On September 26th the Board voted to close the schools, theatres, picture houses and other places of amusement. On Oct. 5th, the Board voted to place a ban on the following places:—

Pool Rooms and Bowling Alleys

Soda Fountains and other public drinking places.

Public Library

Bar Rooms in all places where liquor was drunk on the premises
Card playing or loitering in or about coffee houses or other public gathering places

All funerals were ordered to be private

All stores were ordered closed at 6.30, including the fourth-class liquor license places.

On Oct. 13th, and Oct. 20th, the churches were ordered closed.

On Oct. 25th, the Board of Health felt that, from the rapid falling off in the number of cases reported during the past week and the better condition of things throughout the city relating to the epidemic, there was good reason to believe the disease had sufficiently abated to lift the ban on the institutions and other places affected by its previous orders. Therefore, it was voted that the churches were to open on the next Sunday; the schools, theatres, and business in general to be resumed on the following Monday (Oct. 28th). As to the best measures to be taken to guard against sickness; general warnings to the public were re-issued, i. e.

“Avoid coughing and sneezing in crowds. Whosoever must cough or sneeze should, under these circumstances, in all respect to himself and for the safety of others, smother his cough or sneeze, with a clean handkerchief at least.

Those who are not well, be it from a supposed cold, or possibly impending grippe, should for their own good, as well as for the protection of others, remain in bed during the febrile stage, and seek proper treatment. They should remain at home. Their presence in close quarters is a menace.

One cannot emphasize too strongly the danger of the common drinking cup; the glass at the soda fountain and the saloon; the spoon and plate, especially in the serving of ice cream. In fact, in all objects recently mouthed, where infective mucus is apt to remain, lurks eminent danger. Sterilization cannot be too strongly insisted upon. These have been ordered properly sterilized by the health authorities, who realize, nevertheless, that the cup, plate and spoon which can be destroyed immediately after individual use, is a better method to have in stores where beverages, food and ice cream are served.

Our industrial establishments must all be provided with such means, as to ensure fresh and pure drinking water, for their help, without danger of infection to them.

We must have a rigid enforcement of the law against spitting in public places.

Again, the Public should continue to observe the precautionary simple measures so often recommended; for, after all, influenza is a disease, the control of which rests with the public. The great source of communicable diseases is "Man himself." Man is the great source and reservoir of human infections and Man is Man's greatest foe in this regard. Realizing that the control of man himself requires the consent to be governed by advice, the Board of Health again, now that the disease is on the wane, emphasizes the following simple laws of health:—

Avoid close contact with your fellowmen, especially those who have catarrhal symptoms.

Children should not be allowed to attend school with any symptoms of a cold, nor should they from any household where there is any indication of the disease.

Keep away from improperly ventilated places.

Observe the simple rules of cleanliness.

Live clean and get all the fresh air and sunshine, which is yours for the taking.

Get your fair amount of sleep, and don't borrow trouble."

It might be of interest to glance at the following charts given below, showing the daily number of cases reported, and deaths from both influenza and pneumonia, during the violence of the epidemic.

From Sept. 1st to Dec. 31st, deaths from Influenza and Pneumonia are given below by ages, showing the greater susceptibility of people at certain ages, in comparison with others:

	Total for 1918																										Males		Females	
	Under 1 year	under 2 years	2 years and under 3 years	3 years and under 4 years	4 years and under 5 years	Total under 5 years	5 years and under 10 years	10 years and under 15 years	15 years and under 20 years	20 years and under 25 years	25 years and under 30 years	30 years and under 35 years	35 years and under 40 years	40 years and under 45 years	45 years and under 50 years	50 years and under 55 years	55 years and under 60 years	60 years and under 65 years	65 years and under 70 years	70 years and under 75 years	75 years and under 80 years	80 years and under 85 years	85 years and under 90 years	90 years and over						
Influenza	14	14	6	2	4	4	40	7	2	10	15	24	23	16	11	7	2	1	1	2	1	1	0	0	0	91	72			
Pneumonia	31	36	20	10	6	103	6	8	21	40	72	52	41	32	10	7	8	9	4	4	6	3	0	0	0	215	211			

DATE	September	1918.	October	1918.	DATE	TOTAL										
15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
Influenza Morbidity																
Pneumonia Deaths = Black Influenza Deaths = Red																

It is also interesting to note, that of the total number of deaths from all causes during the year (2473), 800 or exactly one-third were caused from Influenza and Pneumonia.

As time went on, the disease greatly increased the demands on the civil hospitals, also on the doctors and nurses whose ranks were much lessened by the absence of those who had enrolled in the country's service. Consequently, the contagious hospital buildings then nearing completion on West Meadow Road, Lowell, were hurriedly prepared and opened to the Public for the reception and treatment of Influenza patients on Oct. 9th.

Seldom has a hospital been fitted for temporary business so quickly. Within a few days, the Mayor as Commissioner of Public Safety assisted by the Public Safety Committee had this new institution in full operation with a complete organization, and accommodations for 75 beds. In all there were 127 persons treated. There were 25 deaths at the hospital, making a mortality rate of 19%. The greatest number of patients cared for any one day was fifty-five.

After rendering valuable service in splendid management and good results obtained, the hospital closed its doors on Nov. 4th, twenty-seven days from the date of its opening.

Too much praise cannot be given to all workers throughout the city who assisted in fighting the epidemic. It is to be expected that doctors and nurses should cheerfully face the danger of infection and possible death in the care of the sick, but it is especially commendable that women and men, unaccustomed to such work should do it, willingly and unflinchingly.

The Board again takes this opportunity to express its thanks for this loyal co-operation. The wonderful work done during the epidemic will stand out as one of the heroic deeds during this critical period. It but again exemplifies the splendid spirit of Americanism which is typical of Our City when occasion requires.

PIERRE BRUNELLE, M. D.,
THOMAS F. CARROLL, M. D.,
JOHN E. DRURY,

Board of Health.

INSPECTOR OF MILK

LOWELL, MASS., JAN. 1, 1919.

To the Lowell Board of Health.

GENTLEMEN:—

I have the honor to present the report of the department of Milk, Vinegar and Oleomargarine Inspection for the twelve months beginning Jan. 1, 1918.

Twenty-seven hundred and sixty-two samples of milk; four samples of butter; and seven samples of vinegar have been analyzed during the year. About seventy dairies were visited and samples of milk obtained.

There were four hundred and twenty-four stores licensed to sell milk after an inspection had been made. Twenty-six dealers were issued wagon licenses and thirty-nine stores were issued oleomargarine licenses.

Eight cases of watered milk were prosecuted; two cases of skimmed milk; two cases of violation of the Board of Health Rules and Regulations; one case of improper use of registered milk bottles; one case of no sign on delivery wagon; one case of milk below standard; two cases of watered milk were found guilty and filed; two cases of skimmed milk were discharged; one case of watered milk was discharged. The fines amounted to \$409.00.

The milk department is in need of a proper room in which to carry on bacterial work. It has, at present, most of the necessary apparatus, but no place to set it up. A Dairy Inspector is also needed to inspect the five hundred or more dairies that send milk into the city of Lowell.

Respectfully submitted,

MELVIN F. MASTER,
Inspector of Milk and Vinegar.

INSPECTOR OF MEATS AND PROVISIONS

LOWELL, MASS., JAN. 1, 1919.

*Board of Health,
Lowell, Mass.*

GENTLEMEN :—

The following is a report of the work done by the Inspector of Meats and Provisions for the year 1918:—

INSPECTION OF STORES

Number of inspections made of stores 3,415
 Condemned as unfit for food, 36 ducks, 659 pounds of beef, five (5) fowl and one and one-half (1½) barrels of fish.

INSPECTION OF MEAT AT TIME OF SLAUGHTER

Number of carcasses of swine	347
Number of carcasses of cattle	5
Number of carcasses calves	4
Number of carcasses of swine condemned	11
Number of carcasses of cattle condemned	1

Respectfully submitted,

C. A. HAMBLET, M. D. V.,
 Inspector of Meats and Provisions.

MEDICAL INSPECTION PRIVATE SCHOOLS, 1918

Number of calls	218
Number examined	2967
Number advised	629
Number excluded	50

REPORT OF PLUMBING INSPECTOR

LOWELL, MASS., JAN. 1, 1919.

*Board of Health,
Lowell, Mass.*

GENTLEMEN :—

The following is a report of the plumbing work done for the year ending Dec. 31, 1918:—

Whole Number of Applications for Permits to do plumbing	648
New Houses	70
Old Houses	578
<hr/>	
Total	648
Total visits	3116

Respectfully submitted,

STEPHEN GARRITY,
Plumbing Inspector.

REPORT OF TENEMENT HOUSE INSPECTOR

LOWELL, MASS., JAN. 1, 1919.

*Board of Health,
Lowell, Mass.*

GENTLEMEN :—

Following is a report of the work done by me for the year ending Dec. 31, 1918:—

Tenements Inspected	757
Stores Inspected	108
Bakeries Inspected	65
Amusement Houses Inspected	8
Complaints Investigated	161

Yours respectfully,

WILLIAM H. CONNORS,
Tenement House Inspector.

Notices to abate the following nuisances were sent from this office during the year 1918:—

Clogged sink waste pipes	8
Clogged Drains	25
Clogged water closets	17
Clogged cesspools	2
Leaky sink waste pipes	31
Leaky water supply pipes	7
Leaky roofs	7
Leaky water closets	21
Leaky water closet tanks	6
No water supply to tenements	30
Dilapidated water closets	11
Filthy tenements	2
Filthy stables	5
No water supply to water closets	54
Rubbish in cellars	59
Rubbish in yards	202
No cover on house traps	5
Plaster off ceilings	8
Ceilings whitewashed	46
No cover on sink trap	1
Untrapped sinks	2
Open back vent pipes	3
Manure in yards	2
Sewage in cellar	6
Overflowing ash pits	6
Removal of hens	5
Removal of pigs	8
Removal of pigeons	3
Open drains	25
Contents of dry wells overflowing	2
Contents of privy vaults overflowing	3
Broken water closet bowls	2
No cover on water closet traps	4
Clogged chimney flue	1
Surface drainage	4
Rubbish on roofs	3
Paper off walls	4
Leaky refrigerators	9
Unsealed sink traps	3
Broken and leaky sinks	1
Rubbish in light shaft	1
Permissions to clean privy vaults	9
Permission granted to clean dry wells	4

REPORT OF FUMIGATOR

LOWELL, MASS., JAN. 1, 1919.

*Board of Health,
Lowell, Mass.*

GENTLEMEN :—

Following is a report of the fumigating work done by me during the year 1918:—

Houses	425
Rooms	911
Tuberculosis fumigations	146
Infantile Paralysis Fumigations	8
Cerebro-Spinal Meningitis Fumigations	17
Smallpox Fumigations	2

Respectfully Submitted,

SPENCER D. BROWN,
Fumigator.

REPORT OF WORK DONE IN BACTERIOLOGICAL LABORATORY DURING YEAR 1918

DIPHTHERIA

Examination of Cultures

	For Diagnosis		For Release		No Result	Whole Number
	Positive	Negative	Positive	Negative		
Jan.	10	95	12	25	0	142
Feb.	8	137	7	17	1	170
Mar.	14	74	16	9	2	115
Apr.	4	67	2	16	2	91
May	2	81	0	7	1	91
June	2	51	3	6	1	63
July	3	46	0	2	0	51
Aug.	9	18	0	4	2	33
Sept.	26	72	2	6	13	119
Oct.	28	96	5	26	3	158
Nov.	31	58	14	47	5	155
Dec.	21	74	9	30	10	144
	158	869	70	195	40	1332

TUBERCULOSIS

Examination of Sputum

	Positive	Negative	No Result	Total
Jan.	5	49	2	56
Feb.	12	52	0	64
Mar.	14	62	0	76
April	13	79	2	94
May	9	73	0	82
June	7	48	0	55
July	8	31	0	39
Aug.	9	21	0	30
Sept.	14	28	0	42
Oct.	11	25	1	37
Nov.	11	40	2	53
Dec.	8	42	1	51
	121	550	8	679

TYPHOID FEVER

Examination of Blood for Widal Reaction

	Positive	Negative	No Result	Total
Jan.	3	13	0	16
Feb.	0	7	0	7
Mar.	1	8	0	9
Apr.	1	18	0	19
May	0	20	0	20
June	2	13	0	15
July	1	7	0	8
Aug.	4	15	0	19
Sept.	8	22	2	32
Oct.	0	11	0	11
Nov.	1	7	1	9
Dec.	0	13	0	13
	<hr/> 21	<hr/> 154	<hr/> 3	<hr/> 178

MALARIA

Two specimens of blood were examined for the presence of the Malarial Parasite, with negative results.

CEREBRO-SPINAL MENINGITIS

The cerebro-spinal fluid from 20 specimens of Meningitis was examined. In 9 of these cases, the Meningococcus of Epidemic Cerebro Spinal Meningitis was found.

ANTHRAX

Two examinations were made for Anthrax, both of which showed positive results.

OPHTHALMIA NEONATORUM

2 cases showed Gonococcus.

1 case showed Staphylococci.

1 case showed Morax-Axenfeld Bacillus.

Forty-eight specimens of various character including exudates and pus from abscesses and ulcers were also examined in the Bacteriological Laboratory.

CASES OF CONTAGIOUS DISEASES REPORTED

	1918	1917	1916
Diphtheria, including Croup	186	438	308
Scarlet Fever	99	77	102
Measles	501	360	1180
Typhoid Fever	21	37	61
Smallpox	2	1	1
Cerebro-Spinal Meningitis	19	17	9
Infantile Paralysis	7	9	17
Tuberculosis	256	244	223
Influenza	7394	0	0

DEATHS FROM CONTAGIOUS DISEASES

	1918	1917	1916
Diphtheria, including Croup	17	24	41
Scarlet Fever	4	3	6
Measles	8	4	14
Typhoid Fever	2	7	13
Smallpox	0	0	0
Cerebro-Spinal Meningitis	9	10	7
Infantile Paralysis	5	2	4
Tuberculosis	182	177	149
Influenza	164	3	10

CASES OF DIPHTHERIA REPORTED TO THE BOARD
OF HEALTH, 1918

	Cases Reported	Deaths
January	10	2
February	11	1
March	19	4
April	6	1
May	5	1
June	5	2
July	4	0
August	8	1
September	29	1
October	25	1
November	41	2
December	23	1
	—	—
	186	17

Mortality of Diphtheria, 9.1 per cent.

MORTALITY OF DIPHTHERIA

Antitoxin Treatment

1894	.....	33.0 per cent.
1895	.....	44.0
1896	.....	43.0
1897	.....	23.0
1898	.....	23.0
1899	.....	18.0
1900	.....	10.0
1901	.....	12.0
1902	.....	9.5
1903	.....	10.5
1904	.....	11.0
1905	.....	6.0
1906	.....	9.0
1907	.....	7.5
1908	.....	7.0
1909	.....	12.5
1910	.....	9.2
1911	.....	9.7
1912	.....	10.4
1913	.....	9.9
1914	.....	16.3
1915	.....	10.6
1916	.....	13.3
1917	.....	5.5
1918	.....	9.1

SCARLET FEVER

	1918	1917	1916
Cases reported	99	77	102
Deaths	4	3	6
Per cent total cases	4.0	3.9	5.9

	Cases Reported	Deaths
January	4	0
February	5	1
March	8	0
April	7	0
May	5	0
June	6	0
July	6	0
August	7	0
September	6	2
October	9	1
November	10	0
December	26	0
	—	—
	99	4

MEASLES

	Cases Reported	Deaths
January	19	0
February	10	0
March	21	0
April	56	0
May	105	0
June	97	1
July	111	2
August	36	4
September	13	0
October	19	1
November	1	0
December	13	0
	—	—
	501	8

INFANTILE PARALYSIS

	Cases Reported	Deaths
January	3	1
February	0	0
March	2	0
April	1	2
May	0	1
June	0	0
July	0	0
August	0	0
September	0	0
October	0	0
November	1	1
December	0	0
	<hr/>	<hr/>
	7	5

CEREBRO-SPINAL MENINGITIS

	Cases Reported	Deaths
January	1	1
February	4	2
March	5	4
April	4	0
May	1	0
June	2	1
July	0	0
August	0	0
September	2	1
October	0	0
November	0	0
December	0	0
	<hr/>	<hr/>
	19	9

TUBERCULOSIS

	Cases Reported	Deaths
January	13	9
February	19	16
March	26	9
April	27	26
May	26	19
June	15	16
July	19	12
August	17	16
September	19	11
October	14	21
November	27	8
December	34	19
	<hr/>	<hr/>
	256	182

TYPHOID FEVER

	Cases Reported	Deaths
January	2	0
February	0	0
March	2	0
April	1	0
May	0	0
June	1	0
July	1	0
August	3	1
September	10	1
October	0	0
November	1	0
December	0	0
	<hr/>	<hr/>
	21	2

TYPHOID FEVER

	Population	Cases Reported	Deaths
Total 1918	107,978	21	2
Total 1917	107,978	37	7
Total 1916	107,978	61	13
Total 1915	106,294	112	18
Total 1914	106,294	85	11
Total 1913	106,294	65	11
Total 1912	106,294	86	10
Total 1911	106,294	61	7
Total 1910	106,294	186	22
Total 1909	96,380	91	11
Total 1908	96,380	188	24
Total 1907	96,380	73	9
Total 1906	96,380	30	7
Total 1905	94,889	56	17
Total 1904	104,402	48	17
Total 1903	101,959	238	26
Total 1902	99,574	83	16
Total 1901	94,969	70	18
Total 1900	94,969	85	17
Total 1899	90,114	57	17
Total 1898	87,000	119	24
Total 1897	87,000	105	18
Total 1896	95,700	178	36
Total 1895	84,359	172	33
Total 1894	83,026	282	50
Total 1893	81,694	160	53
Total 1892	80,361	373	75
Total 1891	79,029	293	77
Total 1890	77,696	454	123

A decrease from 1.59 per thousand inhabitants to .018 in twenty-nine years.

VITAL STATISTICS

	1918	1917	1916
Deaths, male	1,272	1,001	1,007
Deaths, female	1,201	937	957
	<hr/>	<hr/>	<hr/>
Total	2,473	1,938	1,964
Children under 1 year	525	459	483
Children under 2 years	684	532	593
Children under 5 years	797	621	676
Per cent of total deaths under 5 years	32.0	32.0	34.4

BIRTHPLACE

	Of Deceased	Of Parents
Lowell	1203	396
Massachusetts	136	249
Other States	313	623
Ireland	258	1064
Canada	232	933
Great Britain	112	289
Other Countries	193	1062
Unknown	26	330
	<hr/>	<hr/>
	2,473	4,946

PLACES OF INTERMENT

St. Patrick's Cemetery	1070
Edson	344
Westlawn	218
Lowell	66
St. Joseph's	544
St. Peter's	2
Other Cemeteries	12
Removed from city	217
	<hr/>
	2473

PLACES OF DEATH

Ward 1	147
Ward 2	320
Ward 3	193
Ward 4	225
Ward 5	200
Ward 6	402
Ward 7	191
Ward 8	155
Ward 9	140
Chelmsford St. Hospital	132
Lowell Hospital	116
Lowell General Hospital	88
St. John's Hospital	135
Coram Hospital	4
Influenza-Emergency Hospital	25
	<hr/>
	2,473
Still-births during the year	181

DEATH RATE

Population, census	1890	77,696	1,959	25.21
estimated	1891	79,029	1,972	24.95
estimated	1892	80,361	2,224	27.67
estimated	1893	81,694	2,094	25.62
estimated	1894	83,026	1,775	21.28
census	1895	84,359	1,857	22.01
estimated	1896	85,700	1,901	22.18
estimated	1897	87,000	1,855	21.33
estimated	1898	87,000	1,808	20.78
estimated	1899	90,114	1,848	20.50
census	1900	94,969	1,849	19.47
estimated	1901	94,969	2,038	21.45
estimated	1902	99,574	1,935	19.43
estimated	1903	101,959	1,898	18.61
estimated	1904	104,402	1,736	16.61
census	1905	94,889	1,899	20.02
census	1906	96,380	1,918	19.90
census	1907	96,380	2,063	21.40
census	1908	96,380	1,963	20.36
census	1909	96,380	1,885	19.55
census	1910	106,294	2,100	19.76
census	1911	106,294	1,925	18.11
census	1912	106,294	1,891	17.79
census	1913	106,294	1,749	16.45
census	1914	106,294	1,768	16.63
census	1915	106,294	1,820	17.12
census	1916	107,978	1,964	18.19
census	1917	107,978	1,938	17.95
census	1918	107,978	2,473	22.90

CAUSES OF DEATH	AGE																SEX									
																	Males	Females								
	Under 1 year	1 year and under 2 years	2 years and under 3 years	3 years and under 4 years	4 years and under 5 years	Total under 5 years	5 years and under 10 years	10 years and under 15 years	15 years and under 20 years	20 years and under 25 years	25 years and under 30 years	30 years and under 35 years	35 years and under 40 years	40 years and under 45 years	45 years and under 50 years	50 years and under 55 years	55 years and under 60 years	60 years and under 65 years	65 years and under 70 years	70 years and under 75 years	75 years and under 80 years	80 years and under 85 years	85 years and under 90 years	90 years and over		
10. Grippe	14	14	6	2	4	40	7	2	10	15	24	23	16	11	7	2	1	1	2	2	1	1	1	1	92	72
11. Miliary Fever .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
12. Asiatic Cholera .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
13. Cholera nostras .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
14. Dysentery	1	1	..	..	1	1	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	..
14a. Dysentery, epidemic .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
15. Pest (Plague; bubonic plague) .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
16. Yellow fever .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
17. Leprosy .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
18. Erysipelas	1	1	..	..	2	2	..	..	..	..	1	1	..	..	..	..	..	..	..	..	..	..	..	..	3	..
19. Other epidemic affections .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
20. Purulent infection and septicemia .....	..	..	1	..	1	1	1	1	..	..	..	1	1	1	1	..	..	1	..	..	..	..	..	..	3	3
21. Glanders and farcy .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
22. Malignant pustule and charbon (anthrax) .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
23. Rabies .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Total for 1918	164	164	64	24	44	164	74	24	104	154	244	234	164	114	74	24	14	14	24	24	14	14	14	14	92	72

[illegible]

CAUSES OF DEATH	Total for 1918	AGE																								SEX	
																										Males	Females
		Under 1 year	1 year and under 2 years	2 years and under 3 years	3 years and under 4 years	4 years and under 5 years	5 years and under 10 years	10 years and under 15 years	15 years and under 20 years	20 years and under 25 years	25 years and under 30 years	30 years and under 35 years	35 years and under 40 years	40 years and under 45 years	45 years and under 50 years	50 years and under 55 years	55 years and under 60 years	60 years and under 65 years	65 years and under 70 years	70 years and under 75 years	75 years and under 80 years	80 years and under 85 years	85 years and under 90 years	90 years and over			
General Diseases.—Concluded																											
37. Bleorrhagia of the adult																											
38. Gonococcal infections of the child																											
39. Cancer and other malignant tumors of the buccal cavity	3													1					2						2		
40. Cancer and other malignant tumors of the stomach and liver	38											1	1	5	5	7	3	7	3	4	1	1	1	1	20		
41. Cancer and other malignant tumors of the peritoneum, intestines and rectum	12														3	1	2	3	1			1	1	2			
42. Cancer and other malignant tumors of the genital organs of the female	18										1		1	2	2	5	5	1	1						18		
43. Cancer and other malignant tumors of the breast	12											1		1	3		2	2		1	2				12		
44. Cancer and other malignant tumors of the skin	2																	1		1					1		

[illegible]

[illegible]

CAUSES OF DEATH	AGE																								SEX	
																									Males	Females
	Under 1 year	1 year and under 2 years	2 years and under 3 years	3 years and under 4 years	4 years and under 5 years	5 years and under 10 years	10 years and under 15 years	15 years and under 20 years	20 years and under 25 years	25 years and under 30 years	30 years and under 35 years	35 years and under 40 years	40 years and under 45 years	45 years and under 50 years	50 years and under 55 years	55 years and under 60 years	60 years and under 65 years	65 years and under 70 years	70 years and under 75 years	75 years and under 80 years	80 years and under 85 years	85 years and under 90 years	90 years and over			
III. Diseases of the Circulatory Apparatus																										
77. Pericarditis	2	...	...	...	...	...	...	...	...	...	...	1	...	...	...	1	...	...	...	...	...	...	2	...
78. Endocarditis, acute	93	1	...	...	...	3	1	1	2	3	3	8	3	8	7	12	8	11	2	12	4	4	1	44 49
79. Organic diseases of the heart	90	6	...	...	6	1	1	1	3	1	1	4	7	10	6	9	14	8	10	2	5	...	1	41 49
80. Angina pectoris	8	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	3	...	3	...	3	5
81. Affections of the arteries (atheroma aneurism, etc.)	123	...	...	...	...	...	...	...	...	...	...	...	...	2	1	12	17	24	25	20	16	5	1	56 67
82. Embolism and thrombosis ..	10	1	...	...	1	...	...	...	...	1	2	...	2	1	...	...	1	1	1	...	...	...	5	5
83. Affections of the veins (varices, hemorrhoids, phlebitis, etc.) .....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
84. Affections of the lymphatic system (lymphangitis, etc.)	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
85. Hemorrhages	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	1	...
86. Other affections of the circulatory apparatus .....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Total of circulatory apparatus	327	8	...	...	8	4	1	2	5	5	6	13	12	21	14	35	40	46	41	34	128	9	3	151 176

CAUSES OF DEATH

[illegible]

[illegible]

CAUSES OF DEATH	Total for 1918	AGE																SEX										
		Under 5 years																Males	Females									
		Under 1 year	1 year and under 2 years	2 years and under 3 years	3 years and under 4 years	4 years and under 5 years	Total under 5 years	5 years and under 10 years	10 years and under 15 years	15 years and under 20 years	20 years and under 25 years	25 years and under 30 years	30 years and under 35 years	35 years and under 40 years	40 years and under 45 years	45 years and under 50 years	50 years and under 55 years	55 years and under 60 years	60 years and under 65 years	65 years and under 70 years	70 years and under 75 years	75 years and under 80 years	80 years and under 85 years	85 years and under 90 years	90 years and over			
108. Hernia, intestinal obstructions	7	2				2					1						1	1			1					1	3	4
109. Other affections of the intestines	3	1	1			2										1											2	1
110. Icterus, grave	1																			1							1	
111. Hydatid tumors of the liver																												
1112. Cirrhosis of the liver	11											1						1	1	2	1	3		2			5	6
1113. Biliary calcula	1																1										1	
1114. Other affections of the liver	9													2		1	1	1	3	2							5	4
1115. Affections of the spleen																												
1116. Peritonitis, simple (puerperal excepted)	8							1	1	2				2		1												8
1117. Other affections of the digestive apparatus (cancer and tubercle excepted)																												
1118. Appendicitis and abscess of the iliac fossa	7							2		1		1								1							3	4
Total digestive apparatus	254	162	17	6	1	3	183	1	2	2	2	2	6	5	4	6	5	8	8	6	1	4				1	127	127

[illegible]

CAUSES OF DEATH	AGE																								SEX	
																									Males	Females
	Under 1 year	1 year and under 2 years	2 years and under 3 years	3 years and under 4 years	4 years and under 5 years	5 years and under 10 years	10 years and under 15 years	15 years and under 20 years	20 years and under 25 years	25 years and under 30 years	30 years and under 35 years	35 years and under 40 years	40 years and under 45 years	45 years and under 50 years	50 years and under 55 years	55 years and under 60 years	60 years and under 65 years	65 years and under 70 years	70 years and under 75 years	75 years and under 80 years	80 years and under 85 years	85 years and under 90 years	90 years and over			
130. Other diseases of the uterus	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
131. Cysts and other tumors of the ovary	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
132. Other diseases of the female genital organs	3	..	..	..	..	..	1	..	..	..	..	1	1	..	..	..	..	..	..	..	..	..	3	..
133. Diseases of the breast, non- puerperal (cancer ex- cepted)	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Total of genito-urinary	116	1	1	1	1	4	2	1	1	8	4	7	11	10	10	10	17	10	10	6	4	1	67	49		
VII. Puerperal State																										
134. Accidents of pregnancy	2	..	..	..	..	..	..	1	..	1	..	..	..	..	..	..	..	..	..	..	..	..	2	..
135. Hemorrhage, puerperal	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
136. Other accidents of labor	2	..	..	..	..	..	..	..	2	..	2	..	..	..	..	..	..	..	..	..	..	..	2	..
137. Septicemia, puerperal	2	..	..	..	..	..	..	1	..	1	..	1	1	..	..	..	..	..	..	..	..	..	2	..
138. Albuminuria and puerperal eclampsia	4	..	..	..	..	..	..	..	2	1	1	1	..	..	..	..	..	..	..	..	..	..	4	..
139. Phlegmasia alba dolens, puerperal	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..

Total for 1918

CAUSES OF DEATH

CAUSES OF DEATH	Total for 1918	AGE																SEX									
																		Males	Females								
		Under 1 year	1 year and under 2 years	2 years and under 3 years	3 years and under 4 years	4 years and under 5 years	Total under 5 years	5 years and under 10 years	10 years and under 15 years	15 years and under 20 years	20 years and under 25 years	25 years and under 30 years	30 years and under 35 years	35 years and under 40 years	40 years and under 45 years	45 years and under 50 years	50 years and under 55 years	55 years and under 60 years	60 years and under 65 years	65 years and under 70 years	70 years and under 75 years	75 years and under 80 years	80 years and under 85 years	85 years and under 90 years	90 years and over		
148. Amputation .....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
149. Other affections of the organs of locomotion .....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Total organs locomotion	7	2	1	1	1	4	1	1	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	3
X. Malformations																											
150. Malformations, congenital, (still births excepted) ..	22	18	3	...	1	22	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	11
XI. Early Infancy																											
151. Congenital debility, icterus and sclerema	136	136	...	...	...	136	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	80
152. Other diseases appertaining to infancy	10	10	...	...	...	10	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	6
153. Lack of care .....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	4
Total early infancy	146	146	...	...	...	146	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	86
XII. Old Age																											
154. Senile debility	12	1	3	2	5	1	3

CAUSES OF DEATH	AGE																										SEX	
																											Males	Females
	Under 1 year	1 year and under 2 years	2 years and under 3 years	3 years and under 4 years	4 years and under 5 years	Total under 5 years	5 years and under 10 years	10 years and under 15 years	15 years and under 20 years	20 years and under 25 years	25 years and under 30 years	30 years and under 35 years	35 years and under 40 years	40 years and under 45 years	45 years and under 50 years	50 years and under 55 years	55 years and under 60 years	60 years and under 65 years	65 years and under 70 years	70 years and under 75 years	75 years and under 80 years	80 years and under 85 years	85 years and under 90 years	90 years and over				
169. Insolation	3	2				5																		1	5	1		
170. Freezing																												
171. Electrical disturbances										1															1			
172. Accidental submersion						2	2	4																	6			
173a. Inanition																												
174. Absorption of deleterious gases (suicide excepted)						1			1			1			1	1	1		1						4	3		
175. Other acute poisonings																		1							1			
176. Other external violence																									5			
Total affections, etc.,	4	5	3	2	3	17	11	7	1	5	8	10	6	8	7	6	5	3	6	3	5	2	1	1	79	33		
XIV. Ill-defined Diseases																												
177. Dropsy																												
178. Sudden death																	1								1			
179. Non-specified or ill-defined causes of death	5	1	1			7				1				1	1										5	5		
Total ill-defined diseases	5	1				7				1				1	1		1								5	6		
Total from all causes	2473	525	159	59	30	24	797	57	37	49	104	170	140	124	126	110	93	119	131	130	97	92	64	24	9	1272	1201	

COLLECTION OF ASHES, 1918

January	2,882	loads
February	2,669	"
March	2,905	"
April	3,207	"
May	2,650	"
June	1,923	"
July	2,099	"
August	2,214	"
September	1,968	"
October	2,116	"
November	2,263	"
December	3,294	"
	<hr/>	
	30,190	"

COLLECTION OF SWILL, 1918

January	339	loads
February	286	"
March	292½	"
April	272½	"
May	313½	"
June	290½	"
July	338	"
August	399½	"
September	401½	"
October	356	"
November	211	"
December	252	"
	<hr/>	
	3752	"

623 loads of Market Refuse were collected in 1918.

715 loads of paper were collected in 1918.

SWILL ACCOUNT, 1918

January	\$333.76
February	278.76
March	293.80
April	286.88
May	331.91
June	294.40
July	339.43
August	415.67
September	428.78
October	354.41
November	209.40
December	255.04
Swill Licenses	550.00
	<hr/>
	\$4,372.24

698½ loads of Swill were charged to the City Farm in 1918
 108 Swill Licenses were issued during the year

FINANCIAL STATEMENT—EXPENDITURES

PAYROLLS—OFFICE

January	\$ 961.68	
February	972.19	
March	1,343.57	
April	988.16	
May	980.16	
June	1,236.20	
July	1,095.01	
August	1,424.80	
September	1,139.84	
October	1,766.39	*
November	1,424.80	
December	1,241.44	
	<hr/>	
	\$14,574.24	

* This includes \$566.55 for wages at Influenza-Emergency Hospital.

BOARD OF HEALTH.

PAYROLLS—YARD

January	\$ 5,444.59
February	5,624.10
March	7,059.60
April	5,133.44
May	5,303.59
June	6,328.57
July	6,058.56
August	7,502.64
September	5,829.14
October	5,471.12
November	6,267.83
December	6,930.92
	<hr/>
	\$72,954.10

ANALYSIS OF OFFICE AND YARD
PAYROLLS OF 1918

OFFICE

Agent	\$ 1,957.48
Fumigator	1,222.80
Tenement House Inspector	1,496.07
Tuberculosis Physician	366.69
Looking Up Settlements	70.00
Plumbing Inspector	1,476.27
Meat Inspector	985.41
Vaccinating Physician	378.69
Health Inspector	1,187.40
Tuberculosis Nurse	871.39
Contagion Inspector	1,584.20
Registrar	1,060.54
Child Welfare Nurses (2)	862.99
Special Police (Smallpox Epidemic)	33.00
Wages during Smallpox Quarantine	166.76
Nurse at Smallpox Hospital	228.00
Emergency Clerk (Influenza Epidemic) ...	60.00
Wages at Influenza-Emergency Hospital ...	566.55
Board of Health (3 Members)	1,500.00
Bacteriologist's Salary	583.31
	<hr/>
	\$16,657.55

YARD

Ashes	\$37,629.24
Swill	14,537.15
Dumps and Alleys	5,823.31
Stable	3,900.98
Foreman	1,700.00
Blacksmith and Helper	2,410.83
Market Refuse	1,786.11
Yardman	1,270.50
Wheelwright	1,196.42
Smallpox	304.00
Cleaning Harnesses	48.00
Putting Out fires on dump	3.81
Vacations	2,343.75
	<hr/>
	\$72,954.10

ANALYSIS OF BILLS, 1918

OFFICE SUNDRIES

Advertising	\$ 75.94	
Bacteriological Laboratory	565.03	
Express	34.32	
Fumigating Supplies	205.50	
Investigating Deaths	116.00	
Printed Supplies	195.25	
Printing Annual Report	118.90	
Stamps and Envelopes	173.50	
Sundries	175.15	
Traveling Expenses	12.98	
Telephone	15.55	
Use of auto	117.00	
Trip Book	24.30	
Car Tickets	383.00	
New Coupe	5.00	
Looking up settlements	8.00	
Baby Hygiene Nurses' Supplies	28.67	
Vaccinating	40.00	
Compensation during U. S. Service	201.80	
(Office Expenses)	<hr/>	\$2,495.89

Mass. Eye and Ear Infirmary	25.00	
Medicine	11.05	
Medical Services	189.50	
Smallpox Expenses	868.16	
Lowell Hospital	84.00	
Lynn City of	15.00	
Fuel	3.00	
Provisions	7.00	
Worcester City of	35.86	
Tewksbury State Infirmary	162.00	
(Expenses other contagious diseases		
besides Tuberculosis)		\$1,400.57
Carpenter Work	\$ 13.11	
Catering	1,494.37	
Coal	1,036.62	
Lunches	25.55	
Medicine and Medical Supplies	445.64	
Gas	72.80	
Water	10.33	
Ice	9.00	
Printed Supplies	212.43	
Provisions	383.83	
Paper Towels	13.00	
Hardware	22.35	
Stationers' Supplies	63.24	
Dry Goods and Furnishings	555.10	
Nursing Services (Wages at hospital)	65.08	
Plumbing	45.20	
Use of Typewriter	4.00	
Sundries	11.20	
Nursing	31.71	
Record Boxes	26.00	
Transportation	29.00	
Laundry	279.14	
Tables	150.00	
Sputum Cup Holders	32.40	
Lowell Gen. Hospital for nursing services	154.24	
Repairing Auto	24.45	
Lowell Gen. Hospital for board and treatment of		
patients	350.00	
Telephone	31.26	
Police Department Services	310.00	
Electric Light	60.18	
St. John's Hospital, for nursing services	112.75	
(Influenza Epidemic Expenses)		\$6,073.98

Burials	25.80	
Chelmsford St. Hospital	545.76	
Clinton Town of	580.40	
Clinic Supplies .....	.30	
Lawrence Tuberculosis Hospital	666.57	
Medical Services	51.00	
Blackstone Town of	2.00	
Medicine	81.60	
Westfield State Sanatorium	1,839.67	
Provisions	1,279.32	
Tewksbury State Infirmiry	900.00	
Peabody, Town of	282.43	
Cambridge, City of	534.00	
St. John's Hospital	9.00	
Boston Consumptives' Hospital	40.50	
Lynn, City of	487.07	
No. Reading State Sanatorium	2,869.72	
Rutland State Sanatorium	513.14	
Traveling Expenses	55.48	
Lakeville State Sanatorium	167.99	
Sputum Cups and Fillers	84.34	
		<hr/>
(Tuberculosis Expenses)		11,016.09
		<hr/>
Total Office Sundries		\$20,986.53

BOARD OF HEALTH

YARD SUNDRIES, 1918

Blacksmith's Supplies	\$ 308.43
Canvas Covers	182.00
Compensation during War Service	322.35
Corn and Meal	451.69
Coal	388.83
Gas	74.07
Hay	6,872.46
Hardware	222.91
Electric Light	93.44
Salt	28.20
Laundry	400.75
Oats	7,936.65
Printed Supplies	27.00
Straw	436.82
Harness Repairing and Supplies	377.28
Leather	20.80
Sundries	101.97
Telephone	8.75
New Tires	27.75
Veterinary Services	55.50
Use of horses	2,359.50
Water	179.74
New Horses	1,225.00
Repairing Carriage	64.85
Locks and Canals	32.72
Brooms	20.00
	<hr/>
	\$22,219.46

MILK DEPARTMENT

SALARIES, 1918

Milk Inspector	\$1,733.32
Collector of Samples	1,059.09
	<hr/>
	\$2,792.41

SUNDRIES

Express	\$ 1.97
Inspection Babcock Machine	3.10
Traveling Expenses	24.54
Telephone	57.90
Motor Hire	8.70
Sundries	11.40
Glassware	76.81
Transportation	1.73
Corks	28.70
Milk Samples	1.42
	<hr/>
	\$216.27

INCOME TRANSFERRED TO GENERAL FUND, 1918

HEALTH DEPARTMENT

Swill Sold	\$3,822.24	
Swill Licenses	550.00	
	<hr/>	\$4,372.24
Cash paid by patients at Influenza Hospital for board.....	378.05	
Sale of Platinum	19.01	
Town of Arlington	110.00	
Commonwealth of Mass.	2,008.56	
Bay State St. Ry. Co., for horse	325.00	
Boston, City of	8.57	
	<hr/>	\$7,221.43

MILK DEPARTMENT

Milk and Oleomargarine Licenses	\$244.50
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COST OF HEALTH DEPARTMENT, 1918

EXPENDITURES

Salaries of Board	\$1,500.00
Salary of Bacteriologist	583.31
Payrolls, Office	14,574.24
Bills, Office	20,986.53
Yard Labor	72,954.10
Yard Sundries	22,219.46
Milk Department Salaries	2,792.41
Milk Department Sundries	216.27
Medical Inspection Private Schools	800.00
	<hr/>
	\$136,626.32

APPROPRIATIONS

Health Office, Salaries	\$ 17,500.00
Health Office, Sundries	12,500.00
Yard Labor	70,000.00
Yard Sundries	18,000.00
Milk Department Salaries	2,566.00
Milk Department Sundries	734.00
Medical Inspection Private Schools	800.00
	<hr/>
	\$122,100.00

Additional Appropriations	19,617.45
Department Transfers	782.52
Receipts	4.00
Credit Transfer	2,000.00
	<hr/>
	\$144,503.97

Debit Transfer	2,000.00
	<hr/>
	\$142,503.97

Balance on hand, Dec. 31, 1918	5,877.65
	<hr/>
	\$136,626.32

SUMMARY, 1918

	Appropriation from Revenue	Dep't Transfers	Debit Transfers	Credit Transfers	Receipts	Additional Appropriation	Total Expenditures	Balance on hand
HEALTH OFFICE								
Salaries:								
Board							\$1,500.00	
Bacteriologist ..							583.31	
Pay Rolls							14,574.24	
							<u>\$16,657.55</u>	\$842.45
Sundries	\$17,500.00							
	\$12,500.00		\$2,000.00		\$4.00	\$15,000.00	\$20,986.53	\$4,517.47
HEALTH YARD								
Labor	70,000.00					2,954.10	72,954.10	
Sundries	18,000.00	\$782.52		\$2,000.00		1,436.94	22,219.46	
MILK DEPARTMENT								
Salaries	2,566.00					226.41	2,792.41	517.73
Sundries	734.00						216.27	
MEDICAL INSPECTION								
PRIVATE SCHOOLS								
Salaries	800.00						800.00	
	\$122,100.00	\$782.52	\$2,000.00	\$2,000.00	\$4.00	\$19,617.45	\$136,626.32	\$5,877.65

BOARD OF HEALTH.

Year	Popula- tion	Expenditures	Revenue	Net Cost	City's Valuation	Taxation per Capita
1894	83,026	\$a57,073.73	\$318.43	\$56,755.03	\$69,091,536	.63
1895	84,359	46,324.04	570.80	45,753.24	68,885,732	.54
1896	85,700	45,587.11	265.57	45,321.54	69,310,472	.53
1897	87,000	48,551.84	2,369.99	46,181.85	70,389,280	.53
1898	87,000	41,026.78	3,229.02	37,779.76	70,977,303	.43
1899	90,114	40,830.23	3,796.05	37,034.18	71,255,587	.41
1900	94,969	b46,266.11	3,647.03	42,619.00	71,529,515	.44
1901	94,969	46,673.41	4,585.26	42,088.15	71,674,588	.44
1902	95,574	c54,815.33	6,103.87	48,711.46	71,903,757	.48
1903	101,959	d46,168.01	4,085.12	42,682.89	72,004,028	.41
1904	104,402	e46,451.97	4,137.31	42,314.66	71,614,907	.40
1905	94,889	f51,707.39	3,727.41	47,979.98	71,645,718	.50
1906	96,380	54,096.00	4,566.66	49,529.34	74,325,775	.51
1907	96,380	57,763.79	6,808.20	50,955.59	76,079,750	.53
1908	96,380	g57,342.61	6,418.50	50,924.11	77,858,831	.53
1909	96,380	56,346.33	6,763.73	h49,582.60	79,176,837	.51
1910	106,294	h65,911.31	h6,770.56	h59,140.75	80,094,803	.56
1911	106,294	i73,425.97	i6,762.36	i66,663.61	82,166,742	.62
1912	106,294	j74,136.25	j7,031.59	j67,104.66	84,797,348	.63
1913	106,294	k91,635.29	7,042.53	84,592.76	87,277,643	.80
1914	106,294	182,448.34	8,040.56	74,407.78	89,294,001	.70
1915	106,294	m88,841.59	6,492.16	82,349.43	92,716,047	.77
1916	107,978	n94,305.92	7,112.16	87,193.76	94,503,423	.80
1917	107,978	o104,327.19	7,379.26	96,947.93	90,820,901	.90
1918	107,978	p136,626.32	7,465.93	129,160.39	98,939,125	1.19

a. Smallpox and Swill Cremation, \$12,708.25.

b. Smallpox, \$4,739.67

c. Smallpox, 6,626.20

d. Smallpox, 1,000.00

e. Smallpox, 1,010.02

f. Smallpox, 3,297.08

g. Smallpox, 291.64

h. This includes expenditures and revenue of Milk Dept.

i. " " " " "

j. " " " " " also Smallpox

k. " " " " " " "

l. " " " " " "

m. " " " " " "

n. " " " " " "

o. " " " " " "

p. " " " " " "

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SEVENTH ANNUAL REPORT
OF
FIRE COMMISSIONER

OF THE FIRE DEPARTMENT
CITY OF LOWELL



FOR THE YEAR
NINETEEN HUNDRED AND EIGHTEEN

REPORT

LOWELL, MASS., January 1, 1919.
TO THE MUNICIPAL COUNCIL OF THE CITY OF
LOWELL:

GENTLEMEN:—I herewith submit the seventh annual report of the Commissioner of the Fire Department for the year ending December 31st, 1918.

The following statement will show the receipts and expenditures for the year:

RECEIPTS

Appropriation	\$215,000.00
Balance from 1917.....	1,633.14
Extra appropriation for increase from July 1	18,300.00
Transfer	200.00
Transferred from general treasury....	2,097.60
	<hr/> \$237,230.74

EXPENDITURES

Fire Alarm	\$2,679.64
Automobiles and repairs of same.....	6,485.13
Chemicals	213.57
Coal and wood.....	4,942.60
Furniture and bedding.....	400.44
Hose	1,233.43
Freight and express.....	32.96
Harness repairs	101.00
Hay and grain.....	7,841.80
Horses	1,750.00
Laundry	940.37
Lighting	2,101.04
Printing and stationery.....	196.60
Repairs	293.26
Shoeing	1,145.47
Soap	207.20
Sundries	1,949.05
Telephone	333.98
Veterinary	118.50

Wagon repairs	842.45	
Water bills	530.15	
		<hr/>
	\$34,338.64	
Salaries and wages.....	202,892.10	
		<hr/>
		\$237,230.74

SPECIAL APPROPRIATION

Appropriated in 1917 for Triple Combination.....\$6,000.00

Expended in 1918 for Triple Combination.....\$6,000.00

Details of the general work of the department will be found in the Chief's report which follows.

Respectfully submitted,

GEORGE H. BROWN,

CHIEF'S REPORT

Chief's Office, Central Fire Station,
Lowell, January 1, 1919.

To the Commissioner of Water Works and Fire Protection of the
City of Lowell.

Dear Sir: In compliance with the City ordinance, I have the honor of submitting for your consideration the annual report of the condition and operation of the Fire Department for the year ending December 31st, 1918.

Salaries of Members of the Fire Department.

Chief Engineer	\$2,500.00 per annum
1st Assistant Chief.....	5.75 per day
2nd Assistant Chief.....	5.25 per day
3rd Assistant Chief.....	4.75 per day
Assistant Engineer	450.00 per annum
Call Men	250.00 per annum
Permanent Men	4.00 per day
Captains of Companies (permanent).....	4.50 per day
Lieutenants of Companies (permanent).....	4.25 per day
Engineers of Steamers (permanent).....	4.25 per day
Electrician	4.75 per day
Linemen	29.50 per week

FORCE

The Department is divided into two classes, Permanent and Call. The Permanent force consists of:

1 Chief Engineer	7 Patrolmen
3 District Chiefs	1 Chauffeur
1 Fire Inspector	3 Drivers
1 Fire Alarm Operator	81 Hosemen
3 Linemen	29 Laddermen
3 Telephone Operators	4 Engineers of Steamers

A total of 149, of which 21 are Captains and 26 Lieutenants.

The Call force consists of:

1 Assistant Engineer
3 Laddermen
9 Hosemen

A total of 13.

This makes a total of 162, divided into companies as follows:

- 6 Steam Fire Engine Companies.
- 6 Horse Hose Companies, 1 with Chemical Engine attached.
- 4 Hook and Ladder Companies, 1 with Chemical Engine attached.
- 1 Protective Company.

CHANGES DURING THE YEAR

Appointed permanent	4
Appointed permanent from call force.....	4
Appointed provisionally (electrician).....	1
Assigned permanent from reserve force.....	10
Died, permanent	2
Died, call	1
Died, pensioners	5
Promoted	15
Resigned from call force.....	1
Resigned from permanent force.....	1

APPARATUS

The apparatus of this department is kept in the best possible condition and consists at present of

Chief's Automobile	1
Asst. Chiefs' Automobiles	2
Electrician's Automobile	1
Combination Motors, Chemical and Hose Wagons...	5
Triple Combinations	2
Auto Patrol Wagon.....	1
Service Car	1
Steam Fire Engines.....	5
Two Horse Hose Wagons.....	6
Ladder Trucks	4
Chemical Engines	2
Hale Water Tower.....	1
Fuel Wagons	8
Hose Pungs	3
Fire Extinguishers	30

RESERVE APPARATUS

Electrician's Wagon	1
Electrician's Sleigh	1
Inspector of Repairs' Wagon.....	1
Two Horse Hose Wagons.....	3
Ladder Truck	1

HORSES

There are at the present time in the service of the department thirty-eight horses.

HARNESS

The harness in use in the department at the present time consists as follows:

Sets of double swinging harness.....	9
Sets of three horse swinging harness.....	6

TELEPHONE

The telephone system is the same that was installed in 1913, consisting of one thirty line switchboard located at the Palmer Street Station, which is connected with the central office of the New England Telephone and Telegraph Company by two toll lines, and also the seventeen different fire stations, the Chief's office and residence, the two District Chiefs' residences and battery room with eleven local lines.

PROTECTIVE DEPARTMENT

This department is maintained by the City and consists of nine permanent men. They have responded to two hundred and seventy-five alarms; in service one hundred and thirty-six and three-quarters hours; spread one hundred and seventy-three covers; used eighty-two extinguishers and forty-five tanks; raised three hundred and ninety feet of ladders.

FIRE PREVENTION.

A systematic inspection of buildings is made by the members of the Fire Department in order to relieve the fire hazard of the city. Each company has a certain district to inspect, and each inspection is recorded on a printed slip with report of conditions found. These slips are turned over to the Chief of the Department, and, when the conditions found are considered dangerous, letters are sent to both owners and tenants to have said conditions remedied. 13,354 buildings were inspected during the year by the different companies.

FIRES AND LOSSES.

The whole number of alarms during the year ending December 31st, 1918 was one thousand and forty-seven (1047). Two hundred and twenty-nine (229) were given from signal boxes; four hundred and three (403) telephones; two hundred and twenty-one (221) stills; twenty-two (22) automatics; thirteen (13) exposures; and one hundred and fifty-nine (159) reported fires. The "No School" signal was given sixteen (16) times. There were four hundred and nine (409) fires extinguished by chemicals alone and one hundred and eighty-three (183) where water was used. The remaining number were extinguished by other means or had been put out before the arrival of the department. Ninety-three (93) were in brick or stone buildings; three hundred and thirty-seven (337) in frame buildings, and four hundred and fifty-eight (458) other than building fires. The reported fires were mostly in frame buildings.

The whole amount of loss, except the reported fires, was one hundred and ninety-five thousand, five hundred twenty-nine dollars and ninety-two cents (\$195,529.92). Insurance, one million two hundred forty-six thousand, one hundred fifty-five dollars (\$1,246,155); insurance paid, one hundred fifty-seven thousand, eight hundred fortyone dollars and forty-one cents (\$157,841.41). Loss above insurance, thirty-seven thousand, six hundred eighty-eight dollars and fifty-one cents (\$37,688.51). Valuation, one million three hundred ninety-two thousand, two hundred fifty-four dollars (\$1,392,254). The reported loss was four thousand ninety-nine dollars and thirty cents (\$4,099.30); insurance, four hundred fifty-four thousand, three hundred sixty-three dollars (\$454,363); valuation, four hundred ninety-nine thousand, five hundred dollars (\$499,500).

There have been ten (10) alarms out of the city, to which some part of the department has responded, for which no insurance are kept; Draut, 4, East Billerica 1, No. Chelmsford 1, Tewksbury 4.

There have been twenty-one (21) fires where the loss was \$1,000 and over.

✓ January 14th, 71 New Spaulding Street owned by P. McAndrew and occupied by T. J. McAndrews, loss \$1,200.

✓ January 24th, 463 Market Street owned and occupied by Nicholas Spyropoulos, loss \$1,598.50.

✗ January 24th, 61 Rock Street owned and occupied by C. H. Hanson & Company, loss \$43,520.12.

✓ January 28th, 20 Seventh Street owned by C. McIntee and occupied by C. Cornell, loss \$2,224.75.

February 5th, 169 Merrimack Street owned by H. S. Hunnewell Estate and occupied by Green Bros. and others, loss \$33,735.

February 9th, 16 Webster Avenue owned by Moses N. Stanley and occupied by B. Welch, loss \$1,213.

March 7th, Jackson Street owned by Bay State Storage Company and occupied by F. M. Bill Company, loss \$20,034.43.

March 18th, Western Avenue owned by George L. Cady & Sons and occupied by George L. Cady & Sons and others, loss \$39,047.58.

March 19th, Dummer Street owned and occupied by the City as Vocational School, loss \$2,403.16.

April 16th, 21 Fenwick Street owned and occupied by George Poulakos, loss \$1,377.60.

May 9th, Tanner Street owned and occupied by D. Ziskind, loss \$1,626.

May 16th, 43 Elm Street owned by J. Flynn Estate and occupied by Winifred Clark, loss \$1,126.01.

June 26th, 243 Mammoth Road owned and occupied by E. Morrison, loss \$1,489.

July 3rd, 701 Merrimack St. owned by Michael Quealey, vacant loss \$3,000.

August 19th, Bolt St. owned by A. Y. Rodger, occupied by Pentucket Fabric Mills and M. S. Ash, loss \$8,785.54.

August 22nd, Newhall St. owned and occupied by W. Coburn Company, loss \$2,588.43.

September 15th, 3 Concord Place, owned by T. H. Elliott and occupied by several, loss \$2,895.

October 2nd, 645 Varnum Avenue owned and occupied by T. Katherine, loss \$2,250.

November 14th, 16 Irving St. owned by M. M. Quealey and occupied by A. Hammer, loss \$1,101.

November 26th, 1017 Gorham St. automobile owned by Lajoie Coal Company, loss \$2,100.

December 31st, 500-502 Merrimack St. owned by D. J. Hart and occupied by D. J. Hart Company, loss \$1,628.85.

The total loss on these twenty-one (21) fires was one hundred seventy-four thousand, nine hundred forty-three dollars and ninety-seven cents (\$174,943.97), leaving twenty thousand, five hundred eighty-five dollars and ninety-five cents (\$20,585.95) to be divided between the other eight hundred and sixty-seven alarms.

A comparison of the total number of alarms and losses from January, 1903, to January, 1919:

Year	Alarms	Ins. Loss	Unins. Loss	Total Loss
1903	446	\$223,585.02	\$ 6,653.86	\$230,238.68
1904	707	326,861.57	90,464.27	417,325.84

1905	798	89,112.18	1,850.00	90,962.18
1906	557	64,994.94	2,270.71	67,265.65
1907	838	242,167.98	39,624.52	281,792.50
1908	935	350,873.25	16,421.80	367,295.05
1909	963	177,759.11	8,705.80	186,464.91
1910	904	64,781.93	3,188.00	67,969.93
1911	1101	86,034.34	19,295.48	105,329.82
1912	959	260,833.26	9,575.99	270,409.25
1913	882	200,600.03	19,825.26	220,425.29
1914	1028	265,804.53	17,476.53	283,281.06
1915	926	170,262.53	12,127.67	182,390.20
1916	896	138,170.66	3,400.86	141,571.52
1917	1031	129,207.10	14,994.73	144,201.83
1918	1047	161,940.71	37,688.51	199,629.22

TOTAL NUMBER OF BUILDINGS IN THE CITY

Wooden buildings	19,312
Brick buildings	1,070
Cement buildings	176
Stone buildings	82
Wood and glass buildings.....	45
Wood buildings covered with metal.....	13
Steel buildings	12
Iron buildings	10
Concrete buildings	3

Buildings of all descriptions.....	20,723
An increase during the past year of.....	118

NUMBER OF ALARMS OF FIRE EACH MONTH

January	76	July	50
February	65	August	44
March	107	September	47
April	145	October	66
May	85	November	65
June	75	December	63

Total	1,047
-------------	-------

CAUSE OF FIRES AND ALARMS

Reported	159	Broken sprinkler head...	2
Alarms for same fire....	16	Brush	11
Automobiles	34	Carelessness	17
Boiler smoking	1	Careless use of matches..	14
Bon fire	1	Caught from oven	3
Broke through bridge....	1	Cement exploded	1

260
606
364
123
52
1177

Children and matches...	22	Overheated dry room....	1
Chimney	63	Overheated funnel	1
Cigaret	24	Overheated smoke house..	1
Cigar lighter	1	Overheated stove	7
Clothes caught fire.....	5	Plumber's torch	1
Combustion	33	Police	1
Defective smoke pipe.....	2	Rats and matches	7
Dump	139	Rekindled	21
Electric car	7	Reported Alarms	159
Electric fuse	1	Rubbish	28
Electric wires	9	Second alarm	4
Exposure	13	Set by boys.....	9
False alarms	16	Slacked lime	1
Fat on stove.....	3	Soot in stove.....	1
Fire place	1	Sparks from chimney...	2
Fire works	4	Sparks from fire.....	3
Food burning	2	Sparks from forge	3
Fumigating	1	Sparks from furnace	3
Gas jet	5	Sparks from locomotive .	1
Gas stove	8	Sparks from stove	2
Grass	158	Sparks in chute	1
Hot ashes	26	Sparks in picker machine	3
Hot iron	3	Sparks in steel case	1
Investigated	1	Sparks set hay	1
Kerosene stove	4	Sparks set roof	5
Lamp exploded	1	Sparks set sleeper	1
Lamp set woodwork.....	2	Smoking	21
Lamp upset	2	Steam escaping	4
Lantern set woodwork...	1	Steam pipe	1
Lightning	2	Stove funnel set roof ...	1
Meat on stove.....	1	Stove set partition	2
Melting wax	1	Stove smoking	15
Motoreycle	1	Thawing water pipes ...	29
Moulder's flash	1	Thermostat system out of	
No school	16	order	13
No school signal for Lib-		Third alarm	4
erty Bond	1	Unknown	1
Oil heater	3	Water front exploded ...	3
Out of the city.....	10	Water pipe burst	2
Overheated boiler	13		

NUMBER OF ALARMS ANSWERED BY MEMBERS OF THE DEPARTMENT ON DAYS OFF

Capt. C. E. Abare	2	Capt. G. A. Campbell ...	1
Capt. E. W. Bartlett	4	Capt. T. W. Collins	2
Capt. J. E. Burns	1	Capt. T. F. Conway	1

Capt. T. Dwyer	3	C. H. Cogswell !....	1
Capt. W. H. Halstead ...	2	J. F. Convery	2
Capt. C. F. Hemenway ..	2	J. L. Crowe	1
Capt. J. J. McCafferty ..	1	J. J. Donahoe	2
Capt. H. A. Merrill	3	W. F. Egan	1
Capt. J. A. Shea	1	J. N. Emerson	1
Lieut. J. W. Adams	2	J. D. Finnegan	4
Lieut. F. B. Akers	4	J. A. Fletcher	1
Lieut. W. M. Barrett	1	W. T. Foss	2
Lieut. J. M. G. Burns ...	1	H. S. Gardner	2
Lieut. F. G. Collins	1	J. H. Gray	2
Lieut. E. P. Cunningham.	1	W. J. Heelon	1
Lieut. H. L. Foster	2	W. J. Lane	2
Lieut. J. W. Halstead ...	1	J. J. Lowney	1
Lieut. H. F. Harris	2	W. O. Lussier	1
Lieut. W. S. Holt	1	T. F. Maguire	1
Lieut. J. W. Jantzen	4	J. J. Malone	3
Lieut. E. Jennings	1	H. R. Morrison	1
Lieut. G. H. McDermott .	1	J. O'Hare	2
Lieut. J. J. Rinehardt ...	1	W. H. Oke	2
Lieut. C. F. Stackpole ...	1	R. Otley	2
Lieut. W. F. Tighe	1	B. C. Reed.....	1
F. E. Alcott	1	J. H. Rogers	3
W. H. Bamford	5	B. M. Simpson.....	2
E. S. Barnes	2	F. O. J. Townsend.....	1
R. W. Broadbent	2	G. A. Schofield.....	1
C. L. Brown	1	F. J. Sullivan.....	1
R. Carland	1	J. J. Wholey.....	1

SERVICE OF THE DEPARTMENT FOR 1918

	Number of alarms attended	Number of hours worked	Feet of hose laid	Hours of hydrants in use	No. of extingu'rs used	Number of chemical tanks used	Feet of ladders raised	Hours engines worked	Number of covers used
Engine	144	117	10 400	40	76	17	360	9¾	
2	175	108¾	9 600	31¾	75	21	350	6	
3	166	115	8 550	40¾	36	22	295	¼	
4	148	116½	10 600	52½	64	11	44	6	
5	110	158	23 550	105¼	12		36	4½	
6	144	147¼	10 600	79	51	14	365	6½	
Hose	100	77¾	7 100	32	41		193		
8	137	96¼	10 300	38¼	32	18			
9	132	153¼	19 200	80¼	61		410		
10	82	109½	11 900	44½	28	11			
11	98	95¼	7 300	39½	76	5	160		
12	153	211½	19 600	146¾	28		1 214		
Truck	63	60½			1	13	1 339		
2	127	102¼					3 162		
3	129	92					2 123		
4	73	61½					390		173
Protective	275	136¾			82	45			
	2 256	1 959	148 700	730½	663	177	10 441	33	173

IN MEMORIAM

WILLIAM H. HALSTEAD
CAPTAIN

Protective Company
Appointed May, 1864

DIED

February 6, 1918

CHARLES J. MEEHAN
LADDERMAN

Truck Company No. 1
Appointed August, 1914

DIED

May 13, 1918

PATRICK EMERSON
CALLMAN

Hose Company No. 7
Appointed February, 1883

DIED

December 19, 1918

IN MEMORIAM

MARTIN C. ROWELL
PENSIONER

Appointed April, 1894

Pensioned September 28, 1918

DIED

October 11, 1918

DAVID J. HURLEY
CAPTAIN
PENSIONER

Appointed May, 1879

Pensioned February 13, 1917

DIED

October 29, 1918

AMHERST S. MAYNARD
PENSIONER

Appointed November, 1884

Pensioned July 27, 1918

DIED

December 2, 1918

IN MEMORIAM

WILLISTON L. PEABODY
PENSIONER

Appointed November, 1874

Pensioned 1908

DIED

December 5, 1918

FRANK SIMONS
PENSIONER

Appointed September, 1872

Pensioned July 27, 1913

DIED

December 14, 1918

FATALITIES.

March 18. William K. Aldrich, age seventy-three years. Burned to death at G. L. Cady fire, Western Avenue.

June 14. Ovala Bashard, 160 Merrimack Street, age fifty-one years. Clothing caught from gas stove.

June 17. Evangelina Courankos, 591 Market Street, age eight years. Match set clothing.

August 1. Estella Rouselle, 5 West Tenth Street, age four years. Matches set clothing.

August 27. Annette Bouchard, 151 Salem Street, age two years. Clothing caught from gas stove.

September 2. Mabel Bratchell, 22 Essex Street, age five years. Burning grass set clothing.

September 15. Mary O'Hare, 3 Concord Place, age forty-nine years. Suffocated.

December 3. Mrs. Lena Paton, 1 Dalton Place, age seventy-three years. Lighting fire with kerosene.

In conclusion I wish to extend my thanks to His Honor, the Mayor, the Commissioner of Water Works and Fire Protection and the Municipal Council for the interest taken in matters pertaining to the Fire Department. I also wish to thank the officers and members of the Department for the ability, faithfulness and willingness shown in the performance of their duties. I wish to extend thanks to the Chief of Police and the members of the Police Department for the assistance rendered at fires.

Respectfully submitted,

EDWARD F. SAUNDERS,

Chief of Fire Department.

FIRE DEPARTMENT

January 1, 1919.

Commissioner.

GEORGE H. BROWN

Office, City Hall
Residence, 445 Middlesex Street

Chief Engineer

EDWARD F. SAUNDERS

Office, Palmer St. Engine House
Residence, 24 Mt. Washington St.

District Chiefs.

JAMES C. SULLIVAN

250 Rogers St.

DANIEL R. CROWLEY

26 .Marginal St.

THOMAS F. SAUNDERS

168 School St.

Assistant Engineer.

CHARLES E. ALWAY

16 West Bowers St.

Chief's Chauffeur.

HARRY B. SANDERS

20 Manahan St.

Fire Alarm Operator.

HENRY C. FERNALD

Palmer St. Engine House

THOMAS McCORMICK, Lineman

37 West Fifth St.

ARTHUR E. KING, Lineman

205 Stackpole St.

ROBERT G. RUTHERFORD, Lineman

34 Ware St.

Telephone Operators.

THOMAS F. CONWAY, Chief Operator

148 Sixth St.

JEREMIAH J. HARRINGTON

243 Stackpole St.

PHILIP McLAUGHLIN

16 Keene St.

GEORGE W. LOVETT

17 Olive St.

Fire Prevention Inspector.

EDWARD P. CUNNINGHAM

109 Mammoth Road

LIST OF MEMBERS, GIVING RANK AND RESIDENCE BY COMPANIES.

ENGINE COMPANY NO. 1.

795 Gorham Street.

Thomas W. Collins, Captain, Badge No. 11	145 Andrews St.
Philip F. Mooney, Lieutenant, Badge No. 18	203 Moore St.
James W. Jantzen, Engineer, Badge No. 16	3 Olive St.
Robert H. Otley, Hoseman, Badge No. 12	Engine House
James O'Hare, Hoseman, Badge No. 13	27 Ellsworth St.
W. Henry Kirkpatrick, Hoseman, Badge No. 10	35 London St.
Wm. J. Heelon, Driver, Badge No. 14	12 rear 33 So. Whipple St.
James H. Gray, Driver, Badge No. 85	23 Ellsworth St.
Thomas McNamara, Call Man, Badge No. 17	Engine House

ENGINE COMPANY NO. 2.

45 Branch Street.

Henry Boynton, Captain, Badge No. 2	17 Lane St.
Orison A. Knapp, Captain, Badge No. 23	47 Hawthorn St.
Franklin B. Akers, Lieutenant, Badge No. 21	25 Waugh St.
Charles F. Stackpole, Lieutenant, Badge No. 22	25 Grace St.
Herman R. Morrison, Engineer, Badge No. 29	342 Westford St.
Wilbur H. Oke, Hoseman, Badge No. 20	175 Westford St.
George A. Crawford, Hoseman, Badge No. 25	47 Highland Ave.
William P. Maker, Driver, Badge No. 26	12 Flemings St.
James H. Lannon, Hoseman, Badge No. 27	819 Lawrence St.
Peter J. Regan, Hoseman	316 Rogers St.
Andrew B. McLaughlin, Hoseman	76 Willie St.

ENGINE COMPANY NO. 3.

Palmer Cor. Middle Street.

Frank Hoyt, Captain, Badge No. 30	21 Eighth Ave.
Elbridge H. Dearth, Captain, Badge No. 31	64 So. Loring St.
Harold L. Foster, Lieutenant, Badge No. 36	31 Midland St.
John J. Rinehardt, Lieutenant, Badge No. 39	101 Gates St.
Moses I. Collins, Hoseman, Badge No. 33	20 Coral St.
Frank E. Turner, Hoseman, Badge No. 3	15 Ware St.
Hugh V. Green, Hoseman, Badge No. 35	549 Lakeview Ave.
Bartholomew J. Mullen, Hoseman, Badge No. 37	2 Clinton Ave.
William E. Gorman, Hoseman, Badge No. 34	17 Ellis Ct.

ENGINE COMPANY NO. 4.

High Street.

J. Edward Burns, Captain, Badge No. 4	39 Whitehead Ave.
Alfred F. Prescott, Lieutenant, Badge No. 42	565 Wilder St.
Joseph M. G. Burns, Lieutenant, Badge No. 47	543 Rogers St.
Charles L. Brown, Engineer, Badge No. 134	Engine House
William F. Dolan, Hoseman, Badge No. 43	Engine House
Patrick J. Mooney, Hoseman, Badge No. 45	158 Pleasant St.
James T. Doyle, Hoseman, Badge No. 49	Engine House
Francis J. Sullivan, Hoseman, Badge No. 44	151 Lawrence St.
George J. Tracy, Hoseman, Badge No. 41	30 Riverside St.
Michael E. Egan, Hoseman, Badge No. 48	113 Pleasant St.

ENGINE COMPANY NO. 5.

29 Fourth Street.

James J. McCafferty, Captain, Badge No. 55	74 Fourth St.
Patrick F. Mahoney, Lieutenant, Badge No. 56	18 Fourth St.
Alonzo E. Kidder, Driver, Badge No. 5	61 Twelfth St.
Jay D. Ismond, Engineer, Badge No. 51	246 Beacon St.
Bird C. Reed, Driver, Badge No. 54	48 Humphrey St.
Edson S. Barnes, Hoseman, Badge No. 50	68 Beacon St.
C. Herbert Cogswell, Hoseman, Badge No. 52	85 Whitney Ave.
Joseph E. Fontaine, Hoseman, Badge No. 109	259 W. Sixth St.
James C. O'Neil, Asst. Engineer, Badge No. 57	20 Sixth Ave.
Thomas F. Sullivan, Hoseman, Badge No. 73	38 Fremont St.
David Common, Call Man, Badge No. 53	109 Beech St.
Frederick D. Mansur, Call Man, Badge No. 58	21 Third St.
Arthur B. Strout, Call Man, Badge No. 59	101 Myrtle St.

ENGINE COMPANY NO. 6.

Fletcher Street.

Richard E. Burns, Captain, Badge No. 68	203 Westford St.
John J. Murphy, Lieutenant, Badge No. 64	239 School St.
Wm. J. Lambert, Lieutenant, Badge No. 65	963 Middlesex St.
John A. Fletcher, Hoseman, Badge No. 6	37 Varney St.
Frank G. Collins, Engineer, Badge No. 62	798 Moody St.
Thomas F. Maguire, Hoseman, Badge No. 63	14 Varney St.
Samuel R. Pendexter, Hoseman, Badge No. 60	22 W. Bowers St.
Edgar Perham, Hoseman, Badge No. 69	55 Arlington St.
John J. Wholey, Hoseman, Badge No. 66	48 Mt. Vernon St.

HOSE COMPANY NO. 7.

490 Central Street.

James A. Shea, Captain, Badge No. 70	22 Bleachery St.
Thomas H. Welch, Lieutenant, Badge No. 72	93 Chapel St.
Timothy J. Dewire, Driver, Badge No. 7	315 High St.
James H. Tracy, Hoseman, Badge No. 76	147 Concord St.
William J. Lane, Hoseman, Badge No. 74	505 Central St.
Peter B. Gray, Hoseman, Badge No. 75	71 Whipple St.

HOSE COMPANY NO. 8.

Merrimack, Corner Race Street.

George F. Flint, Captain, Badge No. 82	63 Woodward Ave.
George H. McDermott, Lieutenant, Badge No. 38	171 Cross St.
Joseph F. Convery, Hoseman, Badge No. 83	19 Bowers St.
Joseph H. Rogers, Hoseman, Badge No. 89	209 Ludlam St.
Henry C. Carpentier, Hoseman, Badge No. 84	30 W. Meadow Rd.
Joseph L. Crowe, Hoseman, Badge No. 87	116 Crawford St.
John J. McCarthy, Hoseman, Badge No. 88	150 Fourth Ave.

HOSE COMPANY NO. 9.

Lincoln Street.

Gilman S. Alcott, Captain, Badge No. 90	1194 Middlesex St.
George H. Chapman, Lieutenant, Badge No. 92	53 Quebec St.
Charles A. Rock, Driver, Badge No. 93	673 Chelmsford St.
Fred Boynton, Hoseman, Badge No. 98	148 Smith St.
Fred O. J. Townsend, Hoseman, Badge No. 96	14 Somerset St.
Frank A. Kappler, Call Man, Badge No. 94	125 London St.

HOSE COMPANY NO. 10.

Mammoth Road.

Edwin W. Bartlett, Captain, Badge No. 160	559 Fletcher St.
William F. Tighe, Lieutenant, Badge No. 162	28 Willie St.
Robert W. Broadbent, Driver, Badge No. 161	11 Fourth Ave.
Roger J. Hayes, Hoseman, Badge No. 164	242 Mammoth Rd.
David Laferriere, Hoseman, Badge No. 167	100 W. Meadow Rd.
Edward F. Farrell, Hoseman, Badge No. 166	12 Third Ave.
John J. Frazier, Call Man, Badge No. 163	54 Starbird St.
Thomas F. Welch, Call Man, Badge No. 165	30 Riverside St.

HOSE COMPANY NO. 11.

Lawrence, Corner South Whipple Street.

William A. Dolan, Captain, Badge No. 200	56 Crowley St.
Edward Jennings, Lieutenant, Badge No. 201	859 Lawrence St.
John D. Finnegan, Driver, Badge No. 203	732 Lawrence St.
John N. Emerson, Hoseman, Badge No. 202	27 Carter St.
Michael J. O'Connor, Hoseman, Badge No. 204	101 London St.
John J. Donohoe, Hoseman, Badge No. 207	76 Agawam St.
Peter Sheehan, Call Man, Badge No. 19	11 Lyon St.
James E. Burns, Call Man, Badge No. 205	93 Moore St.
Frederick H. Crosby, Call Man, Badge No. 206	14 Whidden St.

HOSE COMPANY NO. 12.

West Sixth Street.

Charles E. Abare, Captain, Badge No. 220	51 Fifth St.
Wm. M. Barrett, Lieutenant, Badge No. 221	16 W. Bowers St.
Lewis P. Reed, Lieutenant, Badge No. 224	874 Lakeview Ave.
Joseph Bernier, Hoseman, Badge No. 223	27 Beaulieu St.
Edward Landry, Hoseman, Badge No. 226	29 Beaulieu St.
William F. Egan, Hoseman, Badge No. 225	69 Lilley Ave.

TRUCK COMPANY NO. 1.

Lawrence Street.

Timothy Brown, Captain, Badge No. 209	27 So. Whipple St.
Timothy Dwyer, Captain, Badge No. 210	23 Sidney St.
John J. Lowney, Driver, Badge No. 215	361 Lincoln St.
Jas. F. McGuinness, Ladderman, Badge No. 213	119 Agawam St.
Patrick H. O'Laughlin, Ladderman, Badge No. 216	30 Mead St.
Roy N. Symonds, Ladderman, Badge No. 214	519 Broadway St.
Edward J. Tighe, Ladderman,	72 Chestnut St.

TRUCK COMPANY NO. 2.

Westford Street.

Daniel W. Hilliard, Captain, Badge No. 121	20 Osgood St.
George W. Alcott, Lieutenant, Badge No. 120	62 Grove St.
Willis S. Holt, Lieutenant,	8 Hale St.
George A. Dickey, Driver, Badge No. 127	11 Hastings St.
Edgar E. Smith, Ladderman, Badge No. 123	206 Wilder St.
Hamblin S. Gardner, Ladderman, Badge No. 122	8 Hastings St.
Herbert W. Hilliard, Ladderman, Badge No. 124	20 Osgood St.
Quincy A. Foster, Ladderman, Badge No. 126	39 Midland St.
Forest E. Alcott, Ladderman, Badge No. 28	11 Dover St.
H. A. McLaughlin, Ladderman, Badge No. 212	127 Bellevue St.
Frank E. Harris, Call Man, Badge No. 129	Truck House

TRUCK COMPANY NO. 3.

Palmer Street.

Herbert A. Merrill, Captain, Badge No. 110.	4 Wachusett St.
Thomas F. Conway, Captain, Badge No. 117	148 Sixth St.
Philip J. Connor, Driver, Badge No. 112	506 Gorham St.
William T. Foss, Ladderman, Badge No. 140	37 Pond St.
Robert Carland, Ladderman, Badge No. 111	17 Second St.
John J. McManmon, Ldman, Badge No. 114	23 Woodward Ave.
John P. Moore, Ladderman, Badge No. 116	1017 Central St.
Patrick J. Finnerty, Ldman, Badge No. 119, 113	Lawrence St.
Martin F. McNally, Ldman, Badge No. 115, 57	So. Whipple St.
James A. Haley, Ladderman, Badge No. 113	23 Bowers St.

TRUCK COMPANY NO. 4.

West Sixth Street.

Joseph D'Amour, Captain, Badge No. 100	24 Fisher St.
John J. Flynn, Lieutenant, Badge No. 103	18 Ross Ave.
George E. Schofield, Driver, Badge No. 108	95 Myrtle St.
William O. Lussier, Ladderman, Badge No. 102	9 Bowers St.
Edward A. Walsh, Ladderman, Badge No. 106	19 Mt. Vernon St.
George J. Hurley, Ladderman, Badge No. 107,	192 Fletcher St.
Nathaniel Landry, Call Man, Badge No. 105	29 Carolyn St.
William N. Flagg, Call Man, Badge No. 79	75 Whitney Ave.

PROTECTIVE COMPANY NO. 1.

Warren Street.

George A. Campbell, Captain, Badge No. 135	11 Third Ave.
James W. Halstead, Lieutenant, Badge No. 136	115 Warwick St.
Edw. J. P. Cunningham, Lt., Badge No. 154	109 Mammoth Rd.
John F. Ambrose, Lieutenant, Badge No. 131	212 Princeton St.
Joseph J. Malone, Patrolman, Badge No. 133	427 Lincoln St.
Berry M. Simpson, Patrolman, Badge No. 132	5 Third St.
William H. Bamford, Patrolman, Badge No. 151	53 Main St.
William F. Christie, Patrolman, Badge No. 130	114 Lincoln St.
Frank A. Corcoran, Patrolman, Badge No. 134	556 Central St.

FIRE ALARM TELEGRAPH.

LOCATION—Palmer Street Engine House.

Henry C. Fernald, Operator.

Thomas McCormick, Lineman.

Arthur E. King, Lineman.

Robert G. Rutherford, Lineman.

Ten-circuit Automatic Repeater with Storage Battery of cups	600
Miles of Wire	113
Signal Boxes	168
Engineers' Gongs	8
Engine House Gongs	17
Indicators	18
Tape Register	1
Bell Strikers	12

Gong and Indicator at Police Station.

Gong in Pumping Station.

Gong on Merrimack Square.

Gong on Tower's Corner.

Gong on Northern Depot.

Gong corner Moody and Aiken Streets.

Gong corner Bridge and First Streets.

Gong corner Andover and Fayette Streets.

The strikers are located as follows: Palmer Street Engine House, Varnum School House, High Street Church, Court House, No. 1 Engine House, No. 6 Engine House, Highland School House, Pawtucketville Engine House, Franklin School House, Lawrence Street Engine House, Cornell Street School House, West Sixth Street Engine House.

SEVENTY-FOURTH ANNUAL REPORT

OF THE

LOWELL CITY LIBRARY

TWENTY-NINTH REPORT

OF THE

LIBRARY TRUSTEES

OF THE CITY OF LOWELL
MASSACHUSETTS

FOR THE YEAR NINETEEN HUNDRED EIGHTEEN



LOWELL, MASS.
KILBURN PRINTING COMPANY OLD GRIST MILL
1919

ADMINISTRATION OF THE LIBRARY 1918

Board of Trustees

HON. PERRY D. THOMPSON, MAYOR, *Ex-officio*

HENRY H. HARRIS	.	.	.	.	Term expires 1923
JOHN T. DONEHUE, D. D. S.	.	.	.	.	" " 1919
EDWARD J. WELCH, M. D.	.	.	.	.	" " 1920
HUGH J. MOLLOY	.	.	.	.	" " 1921
ALEXIS E. BERTRAM, M. D.	.	.	.	.	" " 1922

Organization

HON. PERRY D. THOMPSON, Chairman

JOHN T. DONEHUE, Vice-Chairman

FREDERICK A. CHASE, Clerk.

Librarian

FREDERICK A. CHASE

Asst. Librarian

ALICE M. MYERS

Assistants

HARRIET M. SULLIVAN

ANNETTE LEMAITRE

DOROTHY P. WEBSTER

BLANCHE GRAY

ALICE L. DONEHUE

Bindery

WALTER H. GILMAN

HARRY C. BOWEN

LEO MONGRAIN

Superintendent of Reading Room

STEPHEN T. WYMAN

Librarian of Children's Room

BERTHA G. KYLE

REPORT OF THE TRUSTEES FOR 1918

To the Honorable, the Municipal Council of Lowell:

Gentlemen:—The Trustees of the City Library herewith present their annual report for the year 1918.

FINANCIAL STATEMENT

Receipts

Appropriation by Municipal Council.....	\$17,617.82
Fines, etc.	387.28
Transfers from John Davis Fund.....	3,440.35
	<hr/> \$21,445.45

Expenditures

Salaries	\$13,391.21
Lighting	575.12
Binding	1,160.44
Periodicals	904.16
Books	306.85
Sundries— Printing	\$390.00
Water Tax	22.50
Express, etc.	69.75
Supplies	375.44
Postage	75.35
Repairs	1.00
Miscellaneous	429.23
	<hr/> \$1,363.27
Delivery Stations	\$304.05
Expenses of Children's Room, Sunday opening and Books, etc., charged to David Fund	3,440.35
	<hr/> \$21,445.45

USE OF THE LIBRARY

The circulation of books for the year shows a falling off in the use of the library, 126,074 for 1918 against 162,813 for 1917 a decrease of 36,739. The falling off was due chiefly to the fact that the library was open only 261 days in 1918 and 301 days in 1917. During repairs to the heating plant and until new boilers were established it was necessary to close the library for about seven weeks.

CHANGES IN THE LIBRARY STAFF

The resignation in July of Miss Alice H. Rinder to become Mrs. John L. Douglas was distinct loss to the Library Staff. She had been connected with the library since May 1902 and was much beloved by her associates and had many friends among the patrons of the library. Her death Dec. 27 barely six months after leaving the library and subsequent marriage was a great shock to all who knew her.

PORTRAIT OF FREDERICK W. STICKNEY

The library's collection of paintings received a valuable addition in the gift by Frederick W. Stickney of an oil portrait of himself by Ernest Ipsen. As Mr. Stickney was the architect of Memorial Building the appropriateness of placing it in the library is evident.

JOHN DAVIS FUND**Income for 1918**

Cash on hand at last report	\$ 919.52	
Interest and dividend earnings on in-		
vestments and loans	3,067.47	
Payment on account of mortgage note..	150.00	
Rebate on Taxes	82.71	
	<hr/>	\$4,219.71

Expenditures

Expenses of Children's Room	\$ 854.17	
Expenses of Sunday opening	268.64	
Books purchased for the Library	2,218.54	
Pictures	99.00	
Cash on hand Jan. 1, 1919	779.35	
	<hr/>	\$4,219.71

JOHN DAVIS FUND

LIST OF SECURITIES

Registered Bonds

Name	Due	Rate of Interest	Par Value
City of Boston	1919	3½%	\$10,000.00
Boston & Maine R. R.	1944	4½%	11,000.00
Boston & Maine R. R.	1926	4%	10,000.00
Boston & Maine R. R.	1929	4½%	5,000.00
N. Y., N. H. & H. R. R.	1954	4%	10,000.00
Illinois Central R. R.	1952	3½%	10,000.00
Boston & Albany R. R.	1952	3½%	4,000.00
Atch., Top. ° Santa Fe	1995	4%	1,000.00
Hartford, Conn.	1923	4½%	10,000.00
City of Fall River	1926	4%	4,000.00
City of Baltimore	1958	4%	5,000.00
City of Waterbury, Conn.	1950	4¼%	4,000.00
			\$84,000.00

Railroad Stock

No. Shares	Name of Road	Price per Share	Amount
41	Boston & Maine (Common)	30	\$1,230.00
39	Boston & Albany	142	5,538.00
1	Nashua & Lowell	139	139.00
1	Concord & Montreal (4th Class)	73	73.00
			\$6,980.00

Manufacturing Stocks

No. Shares	Name of Company	Share Price per	Amount
6	Lowell Bleachery	135	\$810.00
Miscellaneous Stock			
12	American Tel. & Tel. Co.	104⅝	\$1,255.50
3	Lowell Gas Light Co.	170	510.00
			\$1,765.50

Bank Stocks

No.		Price per	
Shares	Bank	Share	Amount
9	Appleton Nat. Bank, Lowell	110	\$990.00
3	Old Lowell Nat. Bank, Lowell	100	300.00
2	Wamesit Nat. Bank, Lowell	100	200.00
11	Union Nat. Bank, Lowell	175	1,925.00
10	First Nat. Bank of West Newton	170	1,700.00
			<hr/>
			\$5,115.00

Savings Bank Book

	Bank	Book No.	Amount
Central Savings Bank		35073	\$202.96

Mortgage Notes

A. H.	\$2,000.00
J. L. L.	400.00
<hr/>	
	\$2,400.00

Summary of Investments and Cash Assets

Name of Investment	Val. Mar. 20, '18	Val. Mar. 29, 19	Increase	Decrease
Registered Bonds	\$84,000.00	\$84,000.00		
Railroad Stocks	6,028.00	6,980.00	\$952.00	
Manufacturing Stocks .. .	798.00	810.00	12.00	
Miscellaneous Stocks	1,729.50	1,765.50	36.00	
Bank Stocks	5,203.00	5,115.00		\$88.00
Savings Bank Book	194.15	202.96		8.81
Mortgage Notes	2,550.00	2,400.00		150.00
Cash in Bank	919.52	679.35		140.67
		<hr/>	<hr/>	<hr/>
	\$101,422.17	\$101,952.81	\$613.02	Net In.

EXHIBITIONS

French Pastellists, Panama Exposition, War, Rhodesia, Glacier, Fragments from France, Masters of Color, Year 1492, St. Gaudens, Advertising Posters, Mother Goose, Verona II, Antarctic.

CONDITION OF THE LIBRARY

New volumes purchased during the year	1,918
Volumes added by gift	
Volumes added by binding periodicals	54
Worn-out books replaced	10
Duplicates purchased	500
Total number of volumes added	1,840
Total number of volumes in the Library.....	102,647
Periodicals and papers subscribed for	
Periodicals and papers given	
Number of volumes used, home and reference.....	121,503
Number of volumes consulted in the Reference Room	5,037
Magazines circulated	4,571
Library opened, days	261
Total circulation	126,074
Average daily circulation	483
Largest monthly circulation (March)	15,774
Smallest monthly circulation (Sept.)	9,339
Largest daily circulation (Feb. 23)	739
Smallest daily circulation (Aug. 14)	108
Percentage of fiction read	73.1
Percentage of other classes	26.9
Children's Room circulation	22,149
Daily average	86

LIST OF DONORS, 1918

	Vol.	Pamphlets
Balch, E. S. and E. M.	1	
Balch, T. Willing	1	
Berry, Albert L.	1	
Bible Training School, So. Lancaster ..	3	
Boudinot, Wm. D.	2	
Brookshire, E. V.	1	
Carbonnel, Emile	1	
Cudworth, W. H.	1	
Farnsworth, E. C.	1	
Guaranty Trust Co., N. Y.	1	
Henry, Francis A.	1	
Kahn, Otto H.	1	1
Kirkland, H. S.	1	
Klein, N. H.	2	
Locks and Canals Co., Lowell	123	
Lowell Temperance Union	1	
Megata Baron Tanetari	1	
Michigan Sac. S. A. R.	1	
Payne, G. H.	1	
Penrose, R. A. F., Jr.	1	
Perlman, L.	1	
Quevli, Nels	1	
Rockefeller, J. D., Jr.		1
Russell, C. P. and L. A.	1	
Serbian Relief Committee	1	

Southern Pine Assoc.	2	
Southworth, W. S.	26	
*Van Norden, W. M.	1	
State Library, Trenton, N. J.	1	
White, Capt. W. P.	2	
Wright, A. A.	1	
	<hr/>	<hr/>
	183	2



STATISTICS IN FORM ADOPTED BY THE AMERICAN
LIBRARY ASSOCIATION

City Library, Lowell, Mass.

Annual Report for Year Ending December 31, 1918.

Population, 1915 Census, 107,978. Estimate, 1918, 130,000.

Free for Lending and Reference.

Two delivery stations, namely one at Davis Square, one in
Centralville and several deposit stations.

Main Library open 261 days during year. 66 hours a week
for lending. 72 hours for reading.

Library open Sundays (Oct. to June) for reference and read-
ing 2 to 9 P. M.

Reading Room open Sundays, 9 A. M. to 9 P. M.

Volumes in Library, January 1, 1918	100,807
Added by purchase	1,765
Added by gift	75

Volumes in Library, Dec. 31, 1918	102,647
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Volumes of fiction lent for home use:

Adult, 73,136; Juvenile, 15,699. Total	88,835
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Total volumes lent for home use:

Adult, 94,317; Juvenile, 22,149. Total.....	116,466
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1592 Borrowers registered during year. Registration period
three years.

230 Newspapers and Periodicals currently received.

New Registration with Three Year Limit, April 1, 1910

Applicants received during the year	1,717
Applicants who did not call for cards	125
Number of names registered Dec. 31, 1918.....	27,319
Number of names registered Dec. 31, 1917	25,727
Total registered during the year	1,592



ANNUAL REPORT

OF THE

CITY SOLICITOR



FOR THE YEAR ENDING
DECEMBER 31, 1918



LOWELL, MASS.

BUCKLAND PRINTING COMPANY, 72-74 MIDDLE STREET

REPORT

OFFICE OF CITY SOLICITOR
LOWELL, MASS.

December 31, 1918.

TO THE MUNICIPAL COUNCIL OF THE CITY OF LOWELL,

GENTLEMEN :

I herewith respectfully submit the following annual report of the law department.

During the year 1918 the following cases have been disposed of :

SUPREME JUDICIAL COURT

658 *Frederick A. Fisher et als vs. Fred H. Rourke.*

This was a petition brought by the members of the so-called High School Building Commission praying that a writ of mandamus might issue against Fred H. Rourke, as city treasurer, directing him to pay to the New England Structural Company and the Concrete Steel Products Company certain amounts named in bills rendered by said Companies to the City of Lowell, said bills having been approved by said Commission, and which the city treasurer had declined to pay, assigning as his reason

therefor, that the city solicitor in an opinion to the Municipal Council had stated that said commission was illegally appointed and did not exist as a matter of law. A demurrer and an answer were filed by the city solicitor, and a hearing held before Judge Carroll. The demurrer was overruled and the matter sent to John A. Brett, Esq., as auditor, to hear the parties and their evidence for the purpose of determining the facts in issue. Several hearings were held before the auditor, who found at their conclusion for the petitioners. Thereafter, exceptions to the auditor's finding were presented by the city solicitor and argued before Mr. Justice Pierce of the Supreme Judicial Court. Judge Pierce found that the High School Building Commission was illegally appointed, and dismissed the petition.

The writ was dated July 6, 1917 and returnable to the Supreme Judicial Court July 17, 1917.

16225 *Frank M. Hadley et als vs. Perry D. Thompson et als.*

This was a petition for a writ of mandamus brought in the Supreme Judicial Court by Frank M. Hadley, Daniel Cosgrove, Joseph Legare, Cornelius Desmond, and Willis E. Morse, praying that said writ might issue against Perry D. Thompson, Charles J. Morse, James E. Donnelly, George H. Brown, and Francis A. Warnock, members of the Municipal Council of the City of Lowell, and Stephen Flynn, City Clerk, and Hugh C. McOsker, Omer Allard and Fred Harrison, members of the Board of Registrars of Voters of said city, commanding them to examine the supplemental petition for the adoption of "Plan B" charter, filed on or about April 1, 1918, and to have same put on the ballot at the next annual city election, provided that a sufficient number of signatures of duly qualified and registered voters on the supplemental petitions, added to the signatures

of the duly registered and qualified voters on the original petition, appeared to form the number required by law to have said petition put on the ballot. There was an agreed statement of facts filed, and a hearing was held before Mr. Justice Carroll on the facts as agreed. The hearing resolved into a discussion wholly of the facts of the case. The court found on the facts as agreed that as a matter of law, the petitioners were not entitled to maintain their action, and dismissed the petition.

The writ was dated July 10, 1918, and returnable to the Supreme Judicial Court July 23, 1918.

16259 *Orison A. Knapp vs. George H. Brown, et al.*

(Law)

This was a petition praying that a peremptory writ of mandamus might issue against George H. Brown, as Commissioner of Water Works and Fire Protection, and Edward F. Saunders, as Chief of the Fire Department, directing them to recognize the petitioner as the holder of the office of captain in the fire department of the City of Lowell, and to treat him as the holder of said office in all respects as before his attempted removal from said office by said Commissioner. The writ was dated December 6, 1918, and returnable to Supreme Judicial Court December 13, 1918. The petitioner was reinstated as captain in said fire department, and the petition dismissed.

3237 *Andrew G. Stiles vs. James E. O'Donnell et als.*

Edward H. Foye vs. Same.

These were two petitions for writs of mandamus brought in the Supreme Judicial Court by the petitioners against the mayor and all other members of the municipal council for the

purpose of reinstating the petitioners in their respective offices of city treasurer and purchasing agent of said city. The respondents filed a plea in abatement, demurrer, and answer in each case, and were ordered by the court to elect on which they chose to be heard. They elected to be heard on their answers and requested that their rights be saved. The cases were consolidated and submitted to Carroll J., upon the petitions and answers and certain communications.

After receiving a notice from the Municipal Council of its proposal to remove him, the petitioner Stiles requested a public hearing before said council, which was granted. Thereafter he was removed from the office of city treasurer.

The petitioner Foye also was granted a public hearing, after receiving notice of his proposed removal from the office of purchasing agent, and thereafter was removed from said office.

In each case Judge Pierce ordered that peremptory writs should issue, and at the request of the parties reported the case on all questions of law for the determination of the full court. The full court confirmed the opinion of the single justice.

These petitions were dated June 25, 1917 and returnable July 23, 1917.

SUPERIOR COURT

30137 *Mary A. Cheney vs. City of Lowell.*

31058 *Props. of Locks and Canals on Merrimack River vs.
Same.*

These were two petitions brought in Superior Court in the year 1917 for a jury to assess damages for land and buildings on Mammoth Road, taken by the City of Lowell for the purpose of constructing a new bridge over the Merrimack River at Paw-

tucket Falls; said land being the property of the Proprietors of the Locks and Canals on Merrimack River, and said building the property of Mary A. Cheney, which building was constructed on said land which had been leased from said Proprietors. Settlement without trial in court was effected with the plaintiffs, and agreements for judgment in the sums of fifteen hundred dollars and eight hundred and thirty-six dollars and eighty cents, respectively, and costs, were filed in the Superior Court. It was agreed that an entry of "Judgment satisfied" might be made in both cases.

The Cheney writ was dated January 18, 1917 and returnable the first Monday of March, 1917. The writ of the Proprietors of the Locks and Canals on Merrimack River was dated June 8, 1917 and returnable the first Monday of August, 1918.

32628 *N. E. Structural Co. vs. City of Lowell.*

This was an action of contract brought in Superior Court for Middlesex County in the sum of fifty thousand dollars to recover for steel furnished by the plaintiff to the City of Lowell for the purpose of constructing a new high school. The matter was settled without trial in court, and it was agreed that an entry of "Judgment in the sum of \$42,414.52", and a further entry of "Judgment satisfied", might be entered.

The writ was dated February 15, 1918 and returnable the first Monday of April, 1918.

32887 *James F. O'Donnell vs. City of Lowell.*

Same vs. Same.

Both of these actions were brought in Superior Court; the first as an action of tort, and the second a petition for a jury to assess damages suffered by said petitioner owing to the extension

of Dummer Street. The writ was dated March 4, 1918 and returnable the first Monday of May, 1918, and the petition was dated March 8, 1918, and returnable the first Monday of May, 1918. The defendant filed a plea in abatement protesting against the maintenance of the action of tort, stating that both actions were for the same cause, and the plaintiff agreed to discontinue his action of tort and proceed with the petition for the assessment of damages by a jury. The case came on to be heard before Judge Hitchcock, but owing to the non-appearance of the petitioner was non-suited. Thereafter it went to judgment, and judgment was entered for the defendant.

29985 *Frank W. Crocker et als vs. City of Lowell.*

This was an action of contract brought in the Superior Court in the sum of twenty thousand dollars to recover for taxes paid under protest. The writ was dated November 30, 1916, and returnable to Superior Court for Middlesex County the first Monday of January, 1917. Trial was had at the April sitting of the Superior Court before Judge Chase, who found for the plaintiff in the sum of nine thousand eight hundred and ninety-seven dollars and seventy-five cents. Exceptions were filed by the defendant and a record of the case prepared for the Supreme Judicial Court. The case was argued at the October session of the Supreme Court before the full bench, who overruled the exceptions of the defendant and sustained the finding of Judge Chase.

Jessica Carr vs. City of Lowell.

This was an action of tort brought in Superior Court by the Plaintiff to recover for personal injuries sustained while traveling on Bowers Street in the City of Lowell, in the sum of two

thousand dollars. The writ was dated January 3, 1918 and returnable the first Monday of February, 1918. This case was settled out of court in the sum of three hundred fifty dollars, and an agreement for judgment in said sum was filed with the Superior Court.

City of Fall River vs. City of Lowell.

This was an action of contract or tort brought in Superior Court in the County of Bristol in the sum of five hundred dollars. The writ was dated Jan. 3, 1918 and returnable the first Monday of March, 1918. This action was brought for the purpose of recovering for aid rendered by the City of Fall River to Hattie Lynch and Richard Armstrong and family, for which a bill had been sent to the Charity Department of the City of Lowell. The matter was taken up by the City Solicitor with City Solicitor Grimes of Fall River and adjusted without trial in Court. A check for ninety-three dollars and sixty cents was sent to the City of Fall River, and the case dismissed.

110277 *Concrete Steel Products Co. vs. City of Lowell.*

This was an action of contract brought in Superior Court for Suffolk County in the sum of eight thousand dollars to recover for money alleged to be due to the plaintiff by the City of Lowell for certain steel furnished by said plaintiff for the construction of the new High School. The writ was dated May 15, 1918 and returnable the first Monday of August, 1918. The matter was adjusted without trial in court, and it was agreed that the entry "judgment in the sum of \$3,523.78, and judgment satisfied" might be made.

POLICE COURT

91 *Irene Sharkey, p. p. a. vs. City of Lowell.*

This was a friendly suit brought in the Police Court of Lowell by John Sharkey in behalf of Irene Sharkey, his minor daughter, to recover the sum of fifty dollars awarded her by the municipal council of the City of Lowell for personal injuries sustained by her on or about February 9, 1917, due to the slippery condition of the stairway leading to the basement of the Butler School. The writ was dated March 1, 1918 and returnable to Police Court the second Saturday of March, 1918. Judgment in the sum of fifty dollars was entered by agreement, the case having been heard before Judge Enright.

79 *Catherine Cox, p. p. a. vs. City of Lowell.*

This was an action of tort brought in Police Court by James H. Cox to recover the sum of eighty dollars awarded by vote of the municipal council of the City of Lowell, for personal injuries sustained by his minor daughter, Catherine, while traveling on Sixth Avenue in the City of Lowell. The writ was dated January 14, 1918 and returnable the fourth Saturday of February, 1918. Judgment in the sum of eighty dollars was entered by agreement, the case having been heard before Judge Enright.

LAND COURT

6760 *Costas D. Papafagos et al Petr. vs. City of Lowell.*

This was a petition to the land court for the registration of certain land located on Varnum Avenue in the City of Lowell. The City of Lowell filed an answer opposing the granting of said petition on the ground that the plan as filed by said petitioner did not show the line of Varnum Avenue as laid out by a resolution of the City of Lowell, dated December 4, 1893, and in accordance with the plan on file in the office of the City Engineer, dated September, 1893. The petitioner agreed to file an amended plan, and upon the filing of said plan the City of Lowell withdrew its objections to the granting of said petition, which petition was dated March 13, 1918, and returnable to land court April 22, 1918.

MATTERS NOW PENDING

33762 *Margaret Vaughan vs. City of Lowell.*

This is an action of tort brought in the Superior Court in the sum of five thousand dollars to recover for personal injuries sustained by the plaintiff while traveling on Carter Street opposite the Carter Street School, on or about February 17, 1918. The writ is dated October 11, 1918 and returnable to Superior Court of Middlesex County the first Monday of December, 1918.

Arthur J. Hebert, p. p. a. vs. City of Lowell.

Joseph J. Hebert vs. Same.

These are two separate actions brought in Superior Court for Middlesex County to recover for personal injuries sustained by

Arthur J. Hebert, a minor, while at the Lincoln School playground, on or about August 13, 1916. Both writs are dated December 27, 1918 and returnable the first Monday of February, 1918. The first action is brought in the sum of five thousand dollars and the second action in the sum of two thousand dollars.

31280 *Andrew G. Stiles vs. Charles J. Morse et als.*

Same vs. Same.

These are two actions of tort brought in the Superior Court against the defendants, Charles J. Morse, George H. Brown and Francis A. Warnock, commissioners of the City of Lowell, by Andrew G. Stiles, treasurer of said city. The first writ is dated June 23, 1917 and returnable the first Monday of August, 1917. The second write is dated January 5, 1918 and returnable the first Monday of February, 1918. Both writs were brought in the sum of five thousand dollars, and later motions were filed to increase the ad damnum in each case to ten thousand dollars, which motions were allowed. These cases were consolidated and heard in the Superior Court before Judge Brown, who, for the purpose of having the matter go to the full court in order to determine the law in the case, ruled that the petitioner could recover. The case then went to the jury on a question of damages wholly, and an exception was taken to the ruling of the court. The matters are now pending in the Supreme Court, and a decision is awaited.

32521 *Alice A. Bagley vs. City of Lowell.*

This is an action of tort brought in Superior Court for Middlesex County in the sum of five thousand dollars to recover for

personal injuries sustained on or about June 22, 1917 while traveling on Wamesit Street in the City of Lowell. The writ was dated February 15, 1918 and returnable the first Monday of March, 1918.

32792 *Fred H. Rourke, Tax Collector, vs. Frank Hanchett.*

This is an action of contract brought in Superior Court for Middlesex County in the sum of ten thousand dollars by Fred H. Rourke, treasurer and tax collector of the City of Lowell, to recover taxes due the City of Lowell from Frank Hanchett for the year 1916. The writ is dated March 30, 1918 and returnable to Superior Court the first Monday of May, 1918.

387 *City of Lowell vs. Herbert D. Oliver.*

This is an action of tort brought in Police Court in the sum of three hundred dollars by the City of Lowell against the defendant for alleged damage to the police automobile patrol, sustained on or about July 20, 1918, due to a collision between the said police automobile and the Reo automobile operated by said defendant. The writ was dated August 27, 1918 and returnable to Police Court the fourth Saturday of September, 1918. On October 2, 1918, the defendant was defaulted.

6838 *John J. McMahon vs. City of Lowell.*

This is a petition to the land court to register and confirm title to certain land in Lowell located in Salem Street and Decatur Avenue. The City of Lowell has filed its answer objecting to said registration and the case is now pending. The petition was dated May 1, 1918 and returnable to land Court May 27, 1918.

WORKMEN'S COMPENSATION

During the year 1918, thirty-two injuries to employees of the various departments in the city were reported to the law department and investigated by said department. After investigation, compensation was paid without question, liability being obvious, to twenty-two employees. Two hearings were held before the Industrial Accident Board. One hearing resulted in a finding for the employee, and the other, the case of Martin Fleming (deceased) vs. City of Lowell brought by his widow seeking four thousand dollars compensation, alleging that the injuries received by him by being run over by an automobile truck while sweeping the streets of the city, resulted in his death, concluded in a finding for the city. This hearing was held before a single member of the Board. Later an appeal was taken to the full Board, and the finding of the single member was sustained. To the remaining eight employees, whose injuries were of a minor character, no compensation was paid. Six employees were carried on the payroll from the year 1917.

The total amount paid out under the act during the year 1918 was \$4761.24. \$4244.97 of this amount was paid as compensation to injured employees; and the balance, \$516.27, was expended for medical and hospital services, expenses of hearings, medicine, and for all other items of expense incident to the carrying on of this work.

There were no fatal accidents during the year, nor any very serious ones. At the present time six employees are drawing compensation, pursuant to the Workmen's Compensation Act.

TABLE OF EXPENDITURES FROM 1914 TO 1918, INC.

	No. of cases	Cases ca- ried over	Comp. pd.	Other Ex.	Total
1914	15		\$ 224.25	\$ 118.14	\$ 342.39
1915	28		1740.42	420.15	2160.57
1916	38		2725.58	863.05	3588.63
1917	23	5	2445.45	536.30	2981.75
1918	37	6	4244.97	516.27	4761.24
Totals	141	11	\$11380.67	\$2453.91	\$13834.58
Total amount paid out under the act from 1914 to 1918, both inclusive:				\$13,834.58	

**DIED ON THE EIGHTEENTH DAY
OF MAY, 1918**

CAPT. M. EUGENE McDONALD

For more than a quarter of a century the investigator of claims for the law department of the City of Lowell.

As a young man Capt. McDonald enlisted in the great Civil War for the emancipation of man and the preservation of liberty, where he served with honor and distinction from the beginning to the close of the war, being honorably discharged with the rank of first lieutenant of cavalry, Co. M. Thereafter he engaged in various industrial enterprises and later became attached to the police department of the City of Lowell, of which department for some period of time he was the chief executive officer. From this office, he became attached to the law department. His fearless and painstaking investigation of the many and varied claims presented against this city; his sterling integrity and exalted plane of rectitude were recognized by all the solicitors under whom he served. His loyalty to the city, and its interests, and his religious devotion to the ideals of the republic stand forth clearly as a tribute to the soldier and the man.

The city has lost in its service one, faithful and efficient; the community, a sterling and unselfish character; and the nation, one whose devotion and patriotism were lasting beyond all else.

WORK AND BUSINESS OF THE LAW DEPARTMENT.

Preparation and Trial of Cases in Court.

Preparation of Releases, deeds and other legal documents.

Preparation of Orders, Ordinances, Votes, and Resolutions.

Preparation of Answers in Land Court Cases in which the city's interests are affected.

Writing of contracts, formal agreements, and the writing of opinions and giving of advice to the various officers and heads of the City Government.

Investigation of minor claims against the city which do not enter court but are disposed of without suit by the municipal council upon the recommendation of the city solicitor.

Investigations of injuries to employees, pursuant to the Workmen's Compensation Act, and the carrying out of the provisions of the Act.

Attendance at Legislative Hearings and hearings before the Public Service Commission and other Commissions.

Conveyance of real estate.

The work of the law department is varied, and in addition to the work above set forth, many matters of importance are brought to the attention of the law department and carried through to a successful conclusion.

On June 19, 1918, Alexander Duncan, a lieutenant in the police department of the City of Lowell, was detailed from said department to the city solicitor's office as the inspector of claims, by Mayor Thompson to take the place left vacant by the death of Capt. McDonald.

OPINIONS.

During the year 1918, in response to written requests the City Solicitor rendered the following written opinions to the following officials:

Jan. 4. JOHN W. KERNAN: Relative to vacations for laborers.

Jan. 12. JOHN W. KERNAN: Relative to regularly employed laborers for the purposes of vacations.

Jan. 15. PERRY D. THOMPSON: Relative to the standing of the treasurer of the City of Lowell.

Jan. 29. JAMES E. DONNELLY: Relative to the claims of Messrs. Foye and Stiles for the payment of salary.

Jan. 29. JOHN W. KERNAN: Relative to the amount of compensation which should be paid to Mr. White, a former employee of the park department, now an enlisted man in the U. S. A.

Feb. 20. PERRY D. THOMPSON: Regarding the liability of the City of Lowell relative to the payment of back salary to Sergt. Thos. McCloughry of the police department.

Mar. 9. BOARD OF LICENSE COMMISSIONERS: Whether a certificate issued in compliance with the provisions of section 26, chapter 655, Acts of 1913, is sufficient to justify the commission in granting a common victualler's license, which grant will satisfy the provisions of section 48 of the same chapter?

Mar. 12. MUNICIPAL COUNCIL: Relative to the status of the Lord case.

Mar. 23. JOHN W. KERNAN: Relative to the jurisdiction over the Varnum Avenue, Old Fair Grounds and Chambers Street properties.

Apr. 5. STEPHEN FLYNN: Whether a petition supplemental to and in addition to the petition filed March 5, 1918, relative to Plan B charter, may be filed in the city clerk's office and be treated as a part of the original petition.

Apr. 27. MUNICIPAL COUNCIL: As to the intent and purpose of c. 254, General Acts of 1917.

May 13. JAMES E. DONNELLY: As to the present status of the Thomas Nesmith fund and the Carney Medal Trust fund.

July 1. LICENSE COMMISSION. Regarding licenses to buy and sell old gold, silver, platinum, second-hand watches, precious stones and jewelry.

Aug. 16. PERRY D. THOMPSON: Relative to the claim of the Wamesit Power Company for damages due to the proposed widening of Lawrence Street.

Aug. 22. PERRY D. THOMPSON: Relative to the power of the mayor to appoint a citizen to perform the services of an officer of the city who is absent in the military or naval service of the United States.

Sept. 19. STEPHEN FLYNN: As to how the question of the adoption or rejection of "Plan C" should be placed on the ballot.

Oct. 8. EDWARD H. FOYE: Relative to the honoring by the purchasing agent of requisitions bearing the signature of the chairman of the park commission.

Nov. 7. STEPHEN FLYNN: Whether or not the registrars of voters are to use regular official voting lists of the year 1918 from which to certify the signatures appearing on the so-called "Plan B" petition.

Pending Cases in which no changes have been made during the year 1918:

- 3032 *Bragg Mfg. Co. vs. City of Lowell (U. S. Ct.)*
- 869 *Bernard Delaney vs. City of Lowell.*
- 922 *James Smith et al vs. City of Lowell.*
- 274 *Peter Curran vs. City of Lowell.*
- 18230 *John H. Handley vs. City of Lowell.*
- 19073 *Winifred Radigan vs. City of Lowell.*
- 20129 *City of Lowell vs. Lizzie Fitzgerald alias.*
- 19911 *Harry P. Graves, Admr. vs. City of Lowell.*
- 20176 *Edward Cawley vs. City of Lowell.*
- 882 *Hassam Paving Co. vs. City of Lowell (U. S. Dist. Ct.)*
- 20591 *Edwin E. McCausland vs. City of Lowell.*
- 1957 *Grade Crossings (1910-Equity.)*
- 1992
- 2402 *R. C. Maxwell Co. vs. James E. O'Donnell et al.*
- 2552 *Thos. F. Carroll et als vs. John B. Clancy.*
- 23009 *Irving L. Hall vs. City of Lowell.*
- 590 *Sophia Hall vs. City of Lowell.*
- 301 *George H. Jones vs. City of Lowell.*
- 24789 *Estella H. Richardson vs. City of Lowell.*
- 26302 *Edward D. Lyons vs. City of Lowell.*
- 28322 *Susan F. Taylor vs. City of Lowell.*
- 26498 *Dennis J. Cooney vs. City of Lowell.*
- 26303 *Lowell Trust Co. vs. City of Lowell.*

- 28002 *Edward Cawley vs. City of Lowell.*
- 28891 *Margaret W. Merrill vs. City of Lowell.*
- 29008 *George C. Dempsey et al vs. City of Lowell.*
- 29009 *George C. Dempsey et al vs. City of Lowell.*
- 28892 *P. Dempsey & Co. vs. City of Lowell.*
- 27988 *Ida C. Braun vs. City of Lowell.*
- 27985 *Elizabeth J. Shunny vs. City of Lowell.*
- 28003 *James Crompton vs. City of Lowell.*
- 27992 *Lowell Day Nursery Assoc'n. vs. City of Lowell.*
- 27987 *Almira Chapman vs. City of Lowell.*
- 27997 *Joseph Gagnon et al vs. City of Lowell.*
- Benjamin F. Nichols et al vs. City of Lowell.*
- 28896 *Frank Malloreys vs. City of Lowell.*
- 31404 *John H. Rigg, Admr. vs. City of Lowell.*
- 31995 *James C. Donovan vs. City of Lowell.*
- 74 *Leo O'Neil vs. City of Lowell.*
- 30661 *Margaret W. Merrill vs. City of Lowell.*
- 32376 *Julia E. Cote vs. City of Lowell.*
- 30678 *City of Lowell vs. Lowell Trust Co.*
- 30798 *City of Lowell vs. Andrew G. Stiles.*
- 30797 *City of Lowell vs. National Surety Co.*
- 30799 *City of Lowell vs. U. S. Fidelity & Guaranty Co.*
- 31281 *Edward H. Foye vs. Charles J. Morse.*

CITY SOLICITORS

1840-1918

Name	Date of Election	Term of Service.
Thomas Hopkinson	Apr. 7, 1840	
John A. Knowles	May 31, 1841	
Richard G. Colby	Apr. 13, 1842	
Seth Ames	Aug. 26, 1843	
Isaac S. Morse	July 31, 1849	
Theodore H. Sweetser	Jan. 3, 1853	
Arthur P. Bonney	Jan. 9, 1855	
Alpheus R. Brown	Jan. 8, 1856	
Robert R. Caverly	Jan. 12, 1857	
Alpheus R. Brown	Jan. 4, 1858	
Theodore H. Sweetser	Jan. 3, 1859	
Alpheus R. Brown	Jan. 6, 1862	Jan. 6, 1862 to Mar. 1, 1864
Tappan Wentworth	Feb. 23, 1864	Feb. 23, 1864 to Mar. 1, 1867
George Stevens	Jan. 7, 1867	Mar. 1, 1867 to Mar. 1, 1870
John F. McEvoy	Jan. 25, 1870	Mar. 1, 1870 to Mar. 1, 1872
Joshua N. Marshall	Jan. 1, 1872	Mar. 1, 1872 to Mar. 1, 1873
John F. McEvoy	Jan. 6, 1873	Mar. 1, 1873 to Mar. 1, 1875
Geo. F. Richardson	Feb. 9, 1875	Mar. 1, 1875 to Mar. 1, 1880
George F. Lawton	Jan. 5, 1880	Mar. 1, 1880 to Mar. 1, 1883
Nathan D. Pratt	Jan. 1, 1883	Mar. 1, 1883 to Mar. 1, 1885
George F. Lawton	Jan. 5, 1885	Mar. 1, 1885 to Mar. 30, 1886
John J. Pickman	Apr. 6, 1886	Apr. 6, 1886 to Mar. 1, 1887
William F. Courtney	Jan. 14, 1887	Mar. 1, 1887 to Mar. 1, 1888
Frederic T. Greenhalge	Jan. 24, 1888	Mar. 1, 1888 to Mar. 1, 1889
Larkin T. Trull	Jan. 7, 1889	Mar. 1, 1889 to Mar. 1, 1891
John J. Hogan	Feb. 10, 1891	Mar. 1, 1891 to Aug. 5, 1895
Francis W. Qua	Aug. 1, 1895	Aug. 5, 1895 to Mar. 1, 1903
William A. Hogan	Jan. 6, 1903	Mar. 2, 1903 to Mar. 1, 1905
J. Gilbert Hill	Jan. 3, 1905	Mar. 1, 1905 to Mar. 1, 1909
William W. Duncan	Jan. 4, 1909	Mar. 1, 1909 to Jan. 2, 1912
J. Joseph Hennessy	Jan. 2, 1912	Jan. 2, 1912 to Feb. 15, 1916
Harold A. Varnum	Feb. 5, 1916	Feb. 5, 1916 to Jan. 30, 1917
William D. Regan	Feb. 9, 1917	Feb. 9, 1917 to

LIST OF JURORS

FOR THE

CITY OF LOWELL

FOR THE YEAR

1919



LIST OF JURORS

A

Abbott, James M., 24 Fairmount st., broker.
Abbott, Leon D., 5 Parkview ave., foreman.
Abell, Orrin W., 31 Princeton st., printer.
Achin, Henry, Jr., 9 Plymouth st., insurance.
Achin, Victor, 749 Merrimack st., dealer.
Achin, Wilfred J., 358 Colonial ave., chauffeur.
Adams, John M., 511 School st., painter.
Adams, Mark A., 43 Berkeley ave., clerk.
Adams, Smith J., 11 Gilbride terrace, salesman.
Adams, Walter S., 49 Sixth st., machinist.
Adsit, Alvaro W., 228 East Merrimack st., second hand.
Ahearn, Joseph J., Jr., 16 Leroy st., blacksmith.
Alexander, J. Walter, 774 Moody st., clerk.
Allard, Henry, 3 Lilley ave., clerk.
Allard, Joseph J., 114 Ennell st., storekeeper.
Allen, Walter M. N., 39 Elliott st., machinist.
Ambrose, Joseph M., 9 Alder st., operative.
Ambrose, William M., 176 Adams st., clerk.
Anderson, August, 23 Lundberg st., operative.
Anderson, Charles E., 7 Bowden st., molder.
Andrews, John A., rear 11 So. Whipple st., leatherworker.
Andrews, J. Munn, 256 Andover st., manufacturer.
Angier, Charles A., 5 Coburn ct., dealer.
Archambault, Amedee, 742 Merrimack st., undertaker.
Armitstead, Robert R., 126 West Meadow rd., dealer.
Arnold, William A., 401 Beacon st., agent.
Ashton, John T., 60 Orleans st., second hand.
Ashworth, James, 137 Stackpole st., gentleman.
Asselin, Charles A., 148 Ennell st., electrician.

Atherton, Charles S., 12 Cheney pl., clerk.
Angluin, David, 21 Crowley st., janitor.
Ayer, Lorenzo, 557 Varnum ave., gardener.
Ayer, William A., 27 Varnum ave., plumber.
Ayotte, Edward, 83 Salem st., operative.

B

Bachelder, Harry B., 158 Mt. Vernon st., manufacturer.
Bachelder, Mark O., 650 Stevens st., overseer.
Bagley, Patrick J., 239 School St., dentist.
Bagshaw, Charles H., 79 Wedge st., manufacturer.
Bagshaw, Walter H., Jr., 148 Sanders ave., Mfgr.
Balfrey, John, 65 Congress st., shoemaker.
Bancroft, Frank M., 7 Brookside st., motorman.
Bardzik, John, 94 Lakeview ave., barber.
Barker, Edgar H., 9 Mt. Hope st., instructor.
Barlofsky, Archie, 135 Howard st., clerk.
Barnes, Henry W., 30 Huntington st., banker.
Barber, Jesse, 76 Congress st., bleachery.
Barber, Joseph, 252 Pawtucket st., mfr.
Barney, Fred M., 606 Stevens st., real estate.
Barrett, Andrew E., 77 Mt. Vernon st., merchant.
Barrett, Edward J., 94 School st., grocer.
Barry, Charles E., 16 Spaulding st., operative.
Barry, Henry, 98 Boisvert st., operative.
Barry, Patrick H., 13 Sycamore st., watchman.
Barry, John H., 15 Lombard st., plumber.
Barry, George, 20 Lombard st., machinist.
Barry, William A., 34 Laurel st., clerk.
Barry, William J., 4 Hanks st., manufacturer.
Basnett, George B., 625 East Merrimack st., barber.
Bassett, Cyrus R., 23 Meadowcroft st., U. S. C. Co.
Baxter, John J., 150 Agawam St., U. S. C. Co.
Bean, Ralph M., 15 Eighth ave., secretary.
Beane, Thomas J., 104 Pleasant st., life insurance.
Beaudry, Francois, 111 Fulton st., teamster.
Beaulieu, John H., 202 Hildreth st., dealer.
Beaumier, Joseph, 11 Second st., clerk.
Beaparlant, Telesphore, 33 Fred st., dealer.

Beauregard, Oliver J., 868 Moody st., clerk.
Beck, Edmund, 107 Warwick st., laborer.
Belanger, Clovis, 768 Merrimack st., solicitor.
Bell, Frank A., 19 Wachusett st., machinist.
Bellefontaine, Miller, 130 Riverside st., furniture dealer.
Beharrell, Joseph R., 121 Wentworth ave., carpenter.
Bennett, George H., 181 East Merrimack st., blacksmith.
Berard, Adelard, 577 Middlesex st., expressman.
Bergeron, Albert, 510 Moody st., salesman.
Bernier, Arthur J., 444 Fletcher st., clerk.
Bernier, Samuel J., 22 Rockdale ave., clerk.
Berry, Daniel F., 10 Marsh st., barber.
Bibeault, Alfred, 110 Ford st., carpenter.
Bibeault, Alfred W., 135 Liberty st., operative.
Bibeault, Alphonse, 21 Wilder ave., stone cutter.
Billingsley, Fred, 320 Wentworth ave., liquor dealer.
Bishop, Herbert L., 28 May st., paymaster.
Bissonnette, John, 47 Mt. Washington st., painter.
Bissonnette, Zephyrin J., 300 Varnum ave., telegrapher.
Bilodeau, Napoleon J., 713 Merrimack st., undertaker.
Blazon, Donat, 131 Gershom ave., printer.
Blodgett, Emery F., 585 Chelmsford st., bookkeeper.
Blood, Cyrus F., 222 High st., clerk.
Blowen, Herbert, 25 Harrison st., ice cream maker.
Boardman, Edward, 467 Merrimack st., dealer.
Boardman, J. Harry, 710 Andover st., banker.
Boisvert, Jacques, 363 Hildreth st., builder.
Boland, James J., 210 Appleton st., manager.
Bonaccorsi, Lawrence, 14 Grand st., operative.
Bonin, Honore, 90 Aiken st., barber.
Bonin, Roderick, 78 Bridge st., printer.
Boudreau, John B., 24 Crawford st., grocer.
Boulais, Arthur N., 8 Dracut st., clerk.
Boule, Lazare, 538 Moody st., operative.
Boulger, John B., 835 Moody st., merchant.
Bourque, Philip R., 19 Lombard st., carpenter.
Bowles, Willis J., 926 Lakeview ave., operative.
Box, John W., 7 Lyons st., beltmaker.
Boyd, Joseph F., 31 Chestnut sq., manager.
Boyle, James H., 110 Congress st., conductor.
Bradley, Albert, 1022 Central st., pool room.

Brady, Thomas, 198 Mammoth rd., manager.
Brachaud, Alberic A., 15 Dana st., manager.
Branchaud, Charles E., 9 Somerset st., clerk.
Bray, Richard, 23 Belrose ave., master mechanic.
Brassard, Maurice, 4 Butterfield st., clerk.
Brassard, Henry J., 68 Mt. Hope st., chauffeur.
Brault, Aristide, 15 Cambridge st., packer.
Breen, Stephen D., 57 Crawford st., ins. agent.
Brennan, George F., 31 Crowley st., Lowell Gas Lt. Co.
Brennan, Owen E., 20 Crowley st., hardware dealer.
Brennan, Frank M., 150 Agawam st., brakeman.
Brierley, Eugene L., 74 So. Loring st., painter.
Briggan, George F., 22 Royal st., clerk.
Brigham, Charles R., 99 So. Walker st., manager.
Boughton, John L., 146 Chelmsford st., laborer.
Brigham, Charles R., 70 Queen st., clerk.
Brissette, Rupert N., 5 Crescent st., clerk.
Broadbent, John W., 42 Maple st., weaver.
Brodeur, Arthur, 13 Gold st., clerk.
Brodeur, Arthur J., 546 Middlesex st., clerk.
Brogan, Frank M., 88 Mt. Vernon st., insurance.
Brogan, Joseph, 80 Mt. Washington st., machinist.
Brosnahan, Patrick H., 796 Lawrence st., liquor dealer.
Brosnan, Patrick T., 38 Second ave., salesman.
Brosnan, Thomas, 100 White st., salesman.
Brosseau, Albert, 16 Lawton st., machinist.
Brousseau, Pierre A., 43 Essex st., clerk.
Bourgeois, Gustave M., 76 Mt. Hope st., clerk.
Brown, Patrick, 198 Cross st., operative.
Brown, Patrick W., 8 Marsh st., operative.
Brown, Patrick H., 980 Varnum ave., brakeman.
Brown, William J., 23 Chase ave., clerk.
Brunelle, Arthur J., 849 Moody st., clerk.
Brunelle, Oliva, 33 Gershom ave., operative.
Buckley, George, 190 High st., gas fitter.
Buckley, James H., 23 Starbird St., cigarmaker.
Buckley, John T., 50 Willow st., painter.
Buckley, Timothy, 453 Riverside st., operative.
Buote, Michael, 407 Moody st., operative.
Burbank, Edgar P., 43 Second ave., operative.
Burbank, Percival P., 14 Eighth ave., dealer.

Burbeck, William J., 32 Sheldon st., retired.
Burke, Edward N., 216 Nesmith st., retired.
Burke, William P., 30 Abbott st., watchman.
Burkinshaw, Joseph, 25 Marlborough st., druggist.
Burns, Arthur G., 160 Pine st., clerk.
Burns, Francis A., 117 Stackpole st., bookbinder.
Burns, George E., 756 Central st., clerk.
Burns, James E., 23 State st., laborer.
Burns, Charles H., 69 Fourth st., barber.
Burt, John W., 16 Sargent st., beamer.
Burt, Fred K., 52 Hanks st., druggist.
Burt, Walter N., 385 Walker st., clerk.
Burrill, John F., 612 Beacon st., clerk.
Brock, Charles F., 47 Seventh ave., clerk.
Brown, James T., 53 Tolman ave., operative.
Byam, Arnold A., 12 Albert st., real estate.
Byam, Otis, 79 Canton st., milk dealer.
Byam, George A. Jr., 198 Methuen st., real estate.

C

Caddell, Peter, 94 Viola st., overseer.
Cadorette, Joseph, 118 Ennell st., mason.
Cady, George L., Jr., 150 Mt. Vernon st., box maker.
Cady, Louis, 629 East Merrimack st., park dep't.
Caddell, John B., 37 Viola st., patternmaker.
Calnin, Martin, 7 Porter st., clerk.
Callahan, George T., 122 Humphrey st., advertiser.
Callahan, Phillip H., 82 Beacon st., painter.
Callery, Bartholomew, 24 Bourne st., Health Dept.
Calnan, Cornelius F., 84 Forrest st., U. S. C. Co.
Camire, Evariste A., 753 Moody st., storekeeper.
Cameron, James, 105 Georgia ave., dealer.
Campbell, Abel R., 23 Harris ave., real estate.
Campbell, Frank J., 711 Westford st., druggist.
Campbell, George M., 48 East Merrimack st., dealer.
Campbell, Thomas J., 848 Moody st., dealer.
Campbell, James C., 52 Bartlett st., operative.
Cannon, Michael F., 1 Woodbury st., printer.
Cantin, Eugene H., 104 School st., real estate.

Carkill, Jeremiah, 242 High st., provisions.
Carmichael, James H., 59 Huntington st., overseer.
Carney, Edward B., 25 Plymouth st., banker.
Caron, Amedee, 99 Ennell st., tailor.
Caron, Joseph, 74 Branch st., carder.
Carpenter, Henry, 27 Ellis ct., shipping clerk.
Carrier, Joseph, 208 Cumberland rd., dealer.
Carrigg, John J., 35 Third st., stage manager.
Carroll, Daniel F., 216 Thorndike st., master plumber.
Carroll, John J., 97 Crawford st., machinist.
Carroll, Joseph P., 780 Chelmsford st., nurse.
Carroll, Thomas A., 81 Fremont st., publisher.
Carroll, Vetrell, 94 Crawford st., operator.
Carroll, William A., 97 Crawford st., druggist.
Casey, James B., 603 Chelmsford st., manufacturer.
Casey, James J., 815 Chelmsford st., manufacturer.
Cassidy, Frank A., 8 Livermore st., assistant janitor.
Cawley, William F., 85 Rogers st., clerk.
Chaloux, William L., 88 Bartlett st., manager.
Chandler, George R., 107 Holyrood ave., teller.
Chambers, John H., 16 New st., teamster.
Chapman, Herbert L., 48 Walker st., printer.
Chappell, Francis, 18 Ash st., laborer.
Charron, Edmond J., 142 Grand st., machinist.
Charron, Sylva, 134 West st., chef.
Chase, Walter I., 284 Gibson st., clerk.
Cheney, Frederick R., 36 B st., tannery.
Choate, Albert H., 40 Hawthorne st., drug clerk.
Chouinard, Zenon, 689 Lakeview ave., repairer.
Christman, Eustache, 154 Woburn st., grocer.
Cinqmars, Euclide, 16 Endicott st., operative.
Claffy, John W., 28 Lawrence st., second hand.
Clapp, Harry C., 17 Marlborough, dealer.
Clancy, Arthur F., 85 Gershom ave., conductor.
Clancy, John, 198 Riverside st., dealer.
Clark, Cornelius E., 228 High st., retired.
Clay, Harry E., 10 Orford st., operator.
Clement, Charles M., 295 Foster st., carpenter.
Clery, John H., 149 E. Merrimack st., clerk.
Clowery, John J., 10 Alder st., barber.
Cluin, John J., 130 Fort Hill ave., jeweler and optician.

Coates, David D., 62 Norcross st., foreman.
Coburn, Harry W., 214 Third st., dentist.
Coburn, Herbert E., 516 Andover st., real estate.
Coburn, Joseph V. B., 215 Mammoth rd., grocer.
Coburn, Clarence B., 215 Mammoth rd., retired.
Coffey, James J., 21 Marginal st., dealer.
Coffey, Humphrey, 130 Adams st., provisions.
Coffey, Timothy J., 21 Marginal st., grocer.
Cogger, John H., 80 White st., printer.
Cogger, Patrick, 438 Riverside st., contractor.
Coggeshall, Frederick H., 74 Nichols st., clerk.
Cole, Fred H., 727 East Merrimack st., foreman.
Cole, John W., 14 Fairfield st., restaurant.
Cole, John H., 69 Bartlett st., operative.
Coleman, Joseph H., 881 Bridge st., painter.
Collins, Cornelius E., 394 High st., real estate and insurance.
Collins, Cornelius, 11 Woodward ave., retired.
Collins, John, 11 Woodward ave., clerk.
Comerford, Charles P., 32 Nineteenth st., grocer.
Conant, Herbert J., 16 Grove st., clerk, B. & M. R. R.
Connolly, John F., 108 Agawam st., wool sorter.
Connor, Edward, 48 May st., second hand.
Connor, John P., 445 Merrimack st., retired.
Connors, Charles, 103 Westford st., clerk.
Conroy, Robert F., 153 Appleton st., manager.
Conroy, John, 509 East Merrimack st., operative.
Conroy, Thomas, 124 Bartlett, clerk.
Conway, Anthony A., 11 Marlborough st., dealer.
Conway, George F., 21 Ellsworth st., provisions.
Conway, John T., 169 Sanders ave., express.
Conway, Richard, 15 Windsor st., clerk.
Cooney, Dennis J., 649 Westford sq., liquor dealer.
Corbett, John H., 14 Burns st., provision dealer.
Corcoran, John J., 438 Fletcher st., asst. ticket agent.
Corcoran, Joseph N., 40 Fort Hill ave., printer.
Cormier, Edmond, 18 Race st., clerk.
Cosgrove, Christopher, 432 Pleasant st., agent.
Cossette, P. Napoleon, 33 Wannalancit st., real estate.
Cossette, Jeffrey, 40 Sparks st., dealer.
Cote, Charles A., Jr., 52 Coral st., auto livery.
Cote, Raoul, 161 East Meadow rd., machinist.

Cottrell, William H., 11 Viola st., printer.
Coughlin, James, 356 Parker st., shoemaker.
Coupe, Matthew, 467 Merrimack st., retired.
Cover, Frank G., 30 West Bowers st., dealer.
Cox, Terence J., 239 Stackpole st., barber.
Coyne, John J., 33 St. James st., salesman.
Craig, Peter R., 59 Porter St., superintendent.
Crane, Eugene F., 517 Westford st., real estate.
Cornellier, Louis J., 479 Moody st., operative.
Cronin, Cornelius F., 344 Varnum ave., clerk.
Cronin, Dennis, 155 Stackpole st., waiter.
Cronin, Joseph L., 347 High st., reporter.
Cronshaw, John, 4 Cranes ave., inspector.
Crosby, Frederick H., 14 Whidden St., plasterer.
Crosby, Sterling B., 38 So. Loring st., real estate.
Croteau, Eudore, 60 Lilley ave., clerk.
Crowley, Robert E., Jr., 115 Fort Hill ave., real estate.
Crowley, William L., 25 Sarah ave., collector.
Cruikshank, Alexander, 20 Chelmsford st., dealer.
Cryan, Martin, 90 White st., dealer.
Cryan, Thomas E., 132 Grove st., conductor.
Crysler, H. Stanley, 258 Gibson st., manager.
Cuff, John H., 18 Agawam st., moulder.
Cuff, Thomas F., 18 Agawam st., dentist.
Cuff, Thomas S., 195 Moore st., druggist.
Cull, John H., 84 Chapel st., printer.
Cull, Thomas F., 249 East Merrimack st., steam fitter.
Cummiskey, Arthur J., 175 Princeton st., automobile dealer.
Cunningham, Clarence, 37 Durant st., steward.
Cunningham, Fred W., 27 Fay st., shuttle maker.
Cunningham, Samuel S., 129 Moore st., confectioner.
Curley, John P., 15 Varney st., dealer.
Curtin, David, 150 West Sixth st., conductor.
Curtin, Edward A., 514 East Merrimack st., barber.
Curtin, Joseph P., 514 East Merrimack st., machinist.
Curran, John, 14 Mt. Grove st., inspector.
Cushing, Joseph L., 32 Mt. Washington st., manufacturer.
Cutler, John S., 840 Varnum ave., barber.
Cutter, Benjamin F., 71 Canton st., dealer.
Cutting, Lawrence F., 78 Methuen st., clerk.

D

Dacey, James, 176 Andover st., clerk.
Daidy, Michael A., 445 Merrimack st., engineer.
Daigle, Henri, 17 Endicott st., operative.
Dallaire, Pierre V., 126 West Sixth st., barber.
Daley, Peter, 203 Broadway, laborer.
Dalton, Francis M., 55 Nesmith st., stenographer.
Dalton, John J., 275 Summer st., clerk.
Daly, John J., 19 North st., operative.
Daly, John W., 76 Andrews st., clerk.
Daly, William F., 20 Walden st., insurance agent.
Dana, Harry C., 365 Worthen st., machinist.
Danahy, James D., 32 State st., plumber.
Danahy, John J., 22 Crowley st., tinsmith.
Dane, George F., 53 Oakland st., B. & M. R. R.
David, Albert W., 234 Gibson st., clerk.
David, Olier, 38 Lilley ave., merchant.
Davis, Fred M., 47 Lundberg st., clerk.
Dawson, John J., 445 Middlesex st., manager.
Day, James E., 493 Gorham st., agent.
Davis, John, 444 Stevens st., moulder.
Dean, Eugene, 203 Salem st., laborer.
Dean, Eugene F., 203 Salem st., clerk.
Dean, Sam, 36 Chatham st., overseer.
Dearborn, Lafayette A., 12 Totman st., engineer.
Decatur, Herman B., 91 Norcross st., salesman.
Delaney, Thomas B., 92 West st., installer.
Delorme, Charles E., 368 Hildreth st., dealer.
Demaras, Harry, 14 Gilbride ter., constable.
Dempsey, Bartholomew, 117 Crawford st., operative.
Dempsey, Robert M., 117 Crawford st., operative.
Denault, Nazaire, 223 Christian st., carpenter.
Denault, Henry, 215 Christian st., tanner.
Derby, Lucius A., 148 First st., electrician.
Dery, Lewis, 63 Lilley ave., mason.
Desaulnier, Olivier L., 14 West Bowers st., clerk.
Descheneaux, Radrick, 767 Moody st., carpenter.
Desilets, Horace, 27 Queen st., clerk.
Deslandes, Ambrose, 78 Queen st., barber.
Desmarais, Edelgard S., 941 Lakeview ave., plumber.

Desmond, Daniel A., 19 Wright st., dealer.
Desrosiers, Joseph Z., 43 Sparks st., dealer.
Devlin, James P., 43 Willow st., printer.
Dextra, Joseph, 518 Merrimack st., barber.
Dexter, Royal K., 319 Wilder st., dealer.
Dillworth, Daniel F., 95 Agawam st., clerk.
Dineen, Michael J., 25 Oliver st., conductor.
Dion, George, 185 Ludlam st., dealer.
Doherty, Henry P., 78 Bridge st., master painter.
Doherty, John J., 14 Hale st., mattress maker.
Doherty, Michael F., 44 Marion st., confectionery.
Donnelly, Edward J., 32 Lane st., conductor.
Donnelly, John F., 7 Newhall st., grocer.
Donohue, Michael J., 3 Brooks st., salesman.
Drewett, Frank, 42 Plummer ave., machinist.
Donohoe, James H., 45 Coral st., clerk.
Donovan, William H., 26 Madison st., dealer.
Doole, George Lee, 241 Moore st., operative.
Doran, Daniel, 173 School st., assistant superintendent.
Doran, Henry F., 61 Butterfield st., trimmer.
Dostaler, Frank X., 105 A st., provisions.
Douglass, John H., 137 Pleasant st., lunch cart.
Dow, Oscar C., 374 High st., clerk.
Doyle, George J., 15 Whipple st., barber.
Dozois, George H., 11 Spalding st., instructor.
Dozois, Hector A., 67 Varney st., machinist.
Dozois, Phillip H., 67 Varney st., operative.
Dragon, Anthony F., 30 Sarah ave., collector.
Drew, John B., 32 Burt st., dealer.
Drinan, George, 537 Merrimack st., machinist.
Drury, John E., 44 Hanks st., plumber.
Dwyer, John, 56 Waverley ave., painter.
Dube, Joseph, Jr., 15 Livermore st., messenger.
Dubois, Joseph, 793 Merrimack st., insurance.
Dubuque, George H., 196 Merrimack st., clerk.
Duffy, Martin E., 1054 Bridge st., cigar maker.
Duggan, Francis P., (U. S. C. Co.), 26 Agawam st.
Dufresne, Edward P., 14 Wiggin st., clerk.
Dumas, George T., 11 Ash st., clerk.
Duncan, John W., 8 Whipple st., plumber.
Dunklee, Fred W., 62 Lundberg st., foreman.

Dunlap, Harry, 116 Hanks st., merchant.
Dunlavey, John C., 647 Broadway, laborer.
Dunlay, John F., 682 Chelmsford st., truckman.
Dunlay, Patrick F., 16 Corson st., truckman.
Dunn, Charles W., 94 Fort Hill ave., clerk.
Dunn, Joseph, 610 School st., dealer.
Dupont, Arthur, 4 Willie ave., fixer.
Durant, Edward R., 157 Fort Hill ave., clerk.
Durkin, John T., 38 Harrison st., printer.
Durkin, Thomas J., 915 Lawrence st., compositor.
Dursthoff, Charles C., 1500 Gorham st., overseer.
Duval, Alfred, 544 Moody st., machinist.

E

Eagan, Thomas E., 93 Nelson ave., clerk.
Eames, Melvin, 32 West Sixth st., second hand.
Edwards, Arthur S., 40 Marginal st., dealer.
Emmott, Walter H., 561 Westford st., manager.
Eno, Pierre T. A., 204 Moody st., agent.
Enright, George W., 344 Varnum ave., clerk.
Erdis, Hugh W., 240 Liberty st., merchant.
Erschine, Charles M., 25 Clark rd., real estate.
Estabrook, Howard M., 22 Seventh ave., meat cutter.
Estes, Fred A., 715 Westford st., insurance.

F

Fahey, William J., 862 Central st., plumber.
Fairburn, George C., 15 Clitheroe st., provision dealer.
Fallon, Andrew J., 108 Meadowcroft st., foreman.
Farley, Harry P., 36 Prescott st., bottler.
Farrell, John M., 2 West View st., auctioneer.
Farrell, Samuel T., 358 Wentworth ave., salesman.
Farrington, John C., 182 Perry st., clerk.
Favreault, William A., 190 Pawtucket st., clerk.
Fecteau, Alexis F., 740 Merrimack st., clerk.
Fee, Thomas F., 126 Bartlett st., tailor.
Fels, Max W., 957 Lakeview ave., clerk.
Fife, James, 46 Merrill st., machinist.

Fielding, Albert, 16 State st., pressman.
Fielding, Joseph E., 21 Olney st., merchant.
Filion, J. Anaclet, 348 Hildreth st., jeweler.
Finlay, Martin B., 115 Andrews st., machinist.
Finlay, William D., 204 Moore st., metal worker.
Finnegan, Frank J., 15 Crane ave., collector.
Finnegan, Daniel T., 11 Sidney st., teamster.
Fitzgerald, Thomas J., 55 Grove st., dealer.
Flannery, Charles Thomas, 132 Pleasant st., conductor.
Flather, Frederick A., 68 Mansur st., treasurer.
Fleet, Sidney R., 329 East Merrimack, journalist.
Fleming, Samuel, 3 Methuen st., bootmaker.
Flood, James H., 118 Bartlett st., dealer.
Flood, Terence E., 28 Mt. Grove st., carpet weaver.
Flynn, Eugene, 160 Agawam st., second hand.
Foisey, Joseph A., 327 Hildreth st., baker.
Foisey, Philip, Jr., 24 Gorham st., cook.
Ford, William Nathan, 15 Harding st., janitor.
Forrest, Charles M., 30 Sanders ave., lumber dealer.
Forrest, Telesphore, 859 Lawrence st., tannery.
Fortier, Joseph M. G., 36 Riverside st., watchmaker.
Fortin, Antoine, 903 Moody st., clerk.
Fortin, Leonce, 43 Plymouth st., manager.
Foye, Daniel, 769 Westford st., dealer.
Foye, John J., 469 Pine st., dealer.
Frawley, David F., 91 Eustis ave., glazier.
Frayne, John F., 117 Willie st., barber.
Frechette, Wilfrid, 769 Merrimack st., overseer.
French, Albert F., 213 Park View ave., manufacturer.
French, Vernon A., 334 Mammoth rd., auto livery.
Frost, Charles E., 285 Princeton st., pedlar.
Frye, Austin A., 105 Eighteenth st., druggist.
Fuller, George B., 1524 Gorham st., lumber man.
Fullerton, Robert J., 17 Dutton st., second hand.

G

Gagnon, George, 837 Moody st., clerk.
Gagnon, Joseph A., 67 Mt. Hope st., buyer.
Gale, Charles A., 23 Jenness st., agent.

Gallagher, Charles A., 85 Gershom ave., inspector.
Gallagher, Charles J., 191 Pleasant st., druggist.
Gallagher, Edward, 300 Wilder st., hotel.
Gallagher, James J., 168 Cumberland rd., cigar store.
Gallagher, Thomas J., rear 34 Coburn st., clerk.
Galley, Arthur C., 17 Winthrop ave., draughtsman.
Galley, John E., 79 B st., carpenter.
Galvin, William H., 535 Lawrence st., fireman.
Gamache, Emile, 9 Rhodora st., grocer.
Gannon, Daniel J., 71 Dover st., dealer.
Gardner, John J., 17 Waterford st., merchant.
Gargan, Frank, 81 Bartlett st., operative.
Garland, Arthur W., 27 So. Loring st., railroad clerk.
Garvey, Thomas F., 72 Lilley ave., cigar maker.
Gaudette, George, 1117 Middlesex st., teamster.
Gaudette, Octave, 44 So. Loring st., wholesale confectioner.
Gauthier, Alfred J., 38 Lilley ave., blacksmith.
Gelinas, Victor, 94 Ford st., grocer.
Gendreau, Flavien, Circuit ave., tannery.
Genereux, Hildege, 17 James st., clerk.
Genest, Arthur, 475 Varnum ave., contractor.
George, Fred A., 150 Hampshire st., retired.
Gerow, David, 158 Chelmsford st., hay and grain.
Gibbons, Michael, 542 Gorham st., machinist.
Giblin, John J., 176 Ennell st., musician.
Gilbert, Arthur D., 173 Foster st., bookkeeper.
Gilbert, Franz S., 50 Laurel st., overseer.
Gilbride, Walter J., 11 West st., druggist.
Gildee, James B., 35 Oak st., clerk.
Gill, Edmund J., 768 Merrimack st., state house, Boston.
Gill, Homer J., 28 Walker st., clerk.
Gilman, Albert I., 20 East Pine st., foreman.
Gilmore, Fred C., 39 Walnut st., humane society.
Gilroy, Frank A., 145 Merrimack st., printer.
Giroux, Frederick, 156 Riverside st., teamster.
Golden, John F., 8 Butterfield st., clerk.
Gonzales, Havier L., 126 Gorham st., cutler.
Gookin, James, 74 Huntington st., furniture business.
Gookin, John J., 15 Aberdeen st., manager.
Gormley, Joseph H., 11 Lyon st., insurance.
Gordon, George W., 61 Loring st., laborer.

Gordon, J. Eugene, 100 So. Walker st., undertaker.
Gorman, James E., 566 Westford st., shoe dealer.
Grady, John J., 576 School st., laborer.
Grady, William E., 881 Varnum ave., manager.
Grandchamps, Napoleon, 12 Arthur ave., clerk.
Gray, Chester M., 423 Stevens st., insurance.
Gray, Harry, 93 Dover st., provision dealer.
Gray, John J., 236 Plain st., real estate agent.
Gray, Michael J., 10 Kinsman st., clerk.
Grew, Raymond Franklin, 529 Moody st., clerk.
Grew, Wilbert, 529 Moody st., clerk.
Green, John J., 3-37 Bartlett st., laborer.
Goodwin, William B., 111 Chestnut st., organist.
Gionet, Aime, 158 Fourth ave., insurance.
Giroux, Arthur H. R., 227 White st., insurance.
Gulline, Percy, 197 Pawtucket st., mfgr.
Guimond, Adelard, 80 D st., brakeman.
Guimond, Amedee, 101 Aiken ave., knitter.
Gumb, Richard, 63 Oakland st., mfgr.
Guyette, Walter E., 372 Parker st., real estate.

H

Hackett, David, 16 Crawford st., Water Works.
Haggart, Daniel L., 60 Bartlett st., mule spinner.
Haggerty, Joseph, 125 Grove st., telegrapher.
Haggerty, Timothy, 726 Lawrence st., helper.
Haggerty, Michael, 171 Powell st., blacksmith.
Haines, Olin M., 18 Upham st., machinist.
Hale, Milo W., Jr., 9 Glidden ave., clerk.
Haley, Michael, 8 State st., mason.
Halstead, Charles W., 259 Princeton st., elec. lt. station.
Hamel, Alfred, 100 Shaw st., checker.
Hamel, Charles, 203 Ludlam st., contractor.
Hamil, Bernard, 134 Dummer st., mason.
Hanson, James S., 584 Westford st., horse dealer.
Harrison, Joseph W., 566 School st., overseer.
Hart, Daniel J., 52 Colonial ave., master baker.
Hart, John J., 336 East Merrimack st., conductor.
Hartigan, Chester F., 137 Moore st., shipper.
Hartigan, Thomas T., 137 Moore st., folder.

Hartley, John F., 40 So. Whipple st., machinist.
Hartnet, John J., 105 Liberty st., operative.
Harrison, Clifton B., 16 Bellevue st., machinist.
Hartwell, George W., 159 Sayles st., foreman.
Harvey, Joseph, 843 Moody st., master plumber.
Hawes, William H., 59 Canton st., broker.
Hayes, Daniel, 73 Fletcher st., motorman.
Hayes, William A., 43 Webber st., conductor.
Healey, Thomas, 921 Lawrence st., overseer.
Hearn, James, 50 Corbett st., watchman.
Hebert, Elzear R., 772 Moody st., clerk.
Heller, George E., 74 Inland st., machinist.
Hemman, Richard C., 245 Stevens st., cashier.
Henley, John J., 50 Methuen st., tailor.
Hennerbery, Stephen, 121 Agawam st., U. S. C. Co.
Henry, Daniel P., 140 Andover, **truckman**.
Hersey, Freeman S., 143 Forrest st., machinist.
Hessian, Thomas F., 30 Chippewa st., machinist.
Hetu, Hermidas, 12 Dane st., second hand.
Hersome, Albra, 22 Ash st., engineer.
Hickey, Walter, 643 Westford st., foreman.
Higgins, John J., 135 Andrews st., undertaker.
Higgins, Joseph J., 84 Mt. Washington st., grocer.
Hiland, Michael, 25 Ash st., operative.
Hill, James, 37 Whipple st., motorman.
Hoar, Martin J., 31 London st., folder.
Hoar, Michael H., 161 Walker st., insurance.
Hogan, James J., 37 Cosgrove st., provisions.
Hogan, John, 54 Bartlett st., shoemaker.
Holmes, Percy, 837 Lakeview ave., wool sorter.
Horne, Fred, 150 Westford st., dealer.
Houde, Theotime, 27 Sarah ave., clerk.
Howell, Wakefield D., 69 Nichols st., clerk.
Howes, George E., 131 Varnum ave., salesman.
Howes, Walter I., 9 Mt. Grove st., stockfitter.
Hoyle, Albert, 124 Mt. Hope st., plumber.
Hoyle, Richard, Jr., 101 Congress st., laborer.
Hubert, Romeo, 102 Cabot st., dealer.
Hughes, Joseph, 105 So. Highland st., grinder.
Hull, Frank B., 606 Stevens st., foreman.
Humphriss, Frederick G., 70 Smith st., watchman.

Hunt, Leonard D., 234 Cabot st., overseer.
Hunter, James F., 111 Liberty st., barber.
Huntington, Edward W., 69 Stevens st., clerk.
Hylan, John B., 28 Nesmith st., gentleman.
Hyde, Daniel, 42 Humphrey st., machinist.

I

Ingham, Fred, 469 Wilder st., dealer.
Inglis, John J., 52 Hampshire st., clerk.
Ineson, William H., 1 Hampshire st., loom fixer.
Irish, Alanson E., 137 Stackpole st., clerk.
Irwin, John M., 53 St. James st., confectioner.

J

Jackson, John S., 120 Gates st., clerk.
Jalbert, Joseph, 100 Fourth ave., contractor.
Jantzen, Joseph W., 3 Olive st., dentist.
Jean, Amedee, 39 Melvin st., retired.
Jenness, Fred M., 710 Chelmsford st., real estate.
Jennings, Joseph, 859 Lawrence st., retired.
Jensen, Otto, 23 Webber st., receiver.
Jewett, Frank E., 1281 Middlesex st., dealer.
Jodoin, Augustus J., 28 Campaw st., operative.
Jodoin, Joseph H., Jr., 23 Claire st., machinist.
Johnson, Francis, 494 Lawrence st., real estate.
Johnson, Michael J., 328 Suffolk st., organist.
Johnson, Curtis W., 416 Westford st., bookkeeper.
Johnson, John H., 487 Andover st., carpenter.
Johnson, Thomas J., 183 Wilder st., clerk.
Johnston, Alexander, 173 Stackpole st., baker.
Johnston, William L., 173 Stackpole st., baker.
Jones, Edwin F., 93 West st., decorator.

K

Kearns, George J., 192 School st., clerk.
Keefe, George F., 101 Beech st., electrician.
Kelleher, John J., 44 Lawrence st., provisions.

Kelleher, Michael, 111 Agawam st., driver.
Kelley, Thomas L., 683 Rogers st., Mass. mills.
Kelley, Thomas F., 578 Andover st., clerk.
Kelley, Patrick J., 31 Clare st., machinist.
Kelley, William A., 799 Princeton st., dealer.
Kelley, William M., 32 John st., janitor.
Kelsey, John H., 52 Humphrey st., plumber.
Kenefick, William, 215 Stackpole st., engineer.
Kennedy, James J., 24 Ash st., retired.
Kennedy, William R., 114 Warwick st., electric light trimmer.
Kennedy, Chester A., 63 C st., clerk.
Kershaw, Samuel, 596 Bridge st., dealer.
Kew, Loring R., 17 Princeton st., dealer.
Keyes, Henry J., 9 Fort Hill ave., clerk.
Killerby, Frank, 26 London st., bookbinder.
Killpatrick, Charles T., 27 Maryland ave., real estate.
Killpatrick, Edwin W., 360 Wilder st., clerk.
Kilpatrick, John A., 21 Bennett st., carpenter.
Kilroy, John, 58 Fremont st., insurance agent.
Kimball, Clarence L., 785 Merrimack st., machinist.
Kimball, George D., 785 Merrimack st., real estate.
King, Walter, 205 Stackpole st., clerk.
King, Joseph D., 67 Bartlett st., lather.
King, Arthur, 205 Stackpole st., electrician.
Kinsella, John F., 50 B st., dealer.
Kirwin, John W., 919 Lawrence st., nickel plater.
Kittredge, Horace V., 34 Third ave., mason.
Kivlan, John H., 73 Moore st., bookkeeper.
Knapp, Fred L., 76 Florence ave., clerk.
Knapp, Harry P., 324 Andover st., pres. Talbot Co.
Knowlton, Harry W., 24 Monadnock ave., draughtsman.

L

Labrie, Eugene, 2-103 Tucker st., manager.
Lambert, Maurice J., Jr., 342 Westford st., dealer.
Lamberton, John A., 114 So. Loring st., editor.
Lazarakis, John F., 508 Market st., merchant.
Laflamme, Gerdia J., 17 Burlington ave., clerk.
Lafleur, Frederick, 1081 Middlesex st.
Lafleur, Harvey A., 44 West Meadow rd., collector.

Landers, Charles J., 27 Wamesit st., printer.
Landry, Edward, 15 Gershom ave., clerk.
Landry, Ernest, 15 Gershom ave., clerk.
Lapointe, Martin, 41 Nichols st., harness maker.
Larivee, John B., 187 Cumberland rd., conductor.
Larochelle, Elzear J., 814 Moody st., reporter.
La Rock, Joseph, Jr., 57 Marshall st., operative.
Larrabee, George C., 15 Corner st., merchant.
Latham, Frank, 587 Stevens st., clerk.
Laurin, Carl G., 40 Lundberg st., stone cutter.
Lavelle, Raymond J., 282 Appleton st., advt. solicitor.
Lavallee, Henry, 75 Gershom ave., jeweler.
Lavallee, Rosario, 75 Gershom ave., jeweler.
Lavoie, Napoleon J., 515 Wilder st., milkman.
Lavoie, Arthur, 114 Ford st., grocer.
Laycock, Joseph Y., 28 Blossom st., chemist.
L'Esperance, Wilford, 30 Dutton st., druggist.
Leadbetter, Chipman O., 83 Gates st., deputy superintendent.
Leary, Daniel, 118 Mt. Washington st., plumber.
Leary, Dennis F., 339 Lincoln st., real estate dealer.
Leary, Jeremiah F., 99 Pleasant st., janitor.
Lecam, Joseph H., 30 Haines ave., clerk.
Lebrun, Nelson J., 192 Pawtucket st., clerk.
Lederman, Philip M., 65 Stevens st., dealer.
Lee, John J., 147 Gershon ave., salesman.
Lee, Robert J., 55 Laurel st., machinist.
Lee, Michael A., 64 Bartlett st., carpenter.
Lees, George, 25 Congress st., dyer.
Leggat, Horatius B., 640 Broadway, teacher.
L'Heureux, Henry, 121 Gershom ave., operative.
Lemkin, Morris, 5 Hampshire st., dealer.
Leveille, Arthur, 122 Mt. Washington st., clerk.
Lew, Fred P., 477 Merrimack st., dyer.
Lightowler, Freeman, 136 Grand st., clerk.
Little, Edwin F., 815 Moody st., stock broker.
Livingston, Cornelius S., 208 Branch st., paymaster.
Livingston, Ephraim D., 287 Westford st., watchman.
Long, Dennis A., 610 Andover st., Prop. Sunday Telegram.
Loranger, Arthur, 14 Lawton st., operator.
Loranger, Louis, 67 Branch st., clerk.
Loranger, Zephirin, Jr., 16 Ash st., clerk.

Loezau, Napoleon M., 45 Endicott st., clerk.
Lull, George E., 11 Nesmith st., merchant.
Lundgren, Ernest, 31 Houghton st., dealer.
Lunt, Jason, 18 Lane st., merchant.
Lussier, Ferdinand, 83 Lilley ave., operative. z
Lussier, George H., 903 Moody st., operative.
Lussier, Joseph A., 28 Grand st., machinist.
Lussier, Rosario, 170 Ennell st., clerk.
Lussier, William O., 9 Bowers st., machinist.
Lyle, James E., 19 Summit st., jeweler.
Lynch, Thomas J., 8-33 So. Whipple st., laborer.
Lynch, Patrick, 159 Walker st., barber.
Lyons, John K., 7 Westford st., pin maker.
Lyons, Maurice T., 41 St. James st., motorman.
Lyons, Murthey, 25 Cross st., clerk.
Lyons, Richard, 48 Prospect st., foreman.
Lyons, Patrick A., 2-267 Worthen st., machinist.

M

Mack, John F., 292 East Merrimack st., clerk.
Magee, John J., 169 High st., grocer.
Magras, Joseph, 763 Moody st., clerk.
Maguire, George F., 280 High st., grocer.
Maguire, John E., 35 Mead st., janitor.
Maguire, Thomas F., 236 Rogers st., solicitor.
Maguire, Philip F., 57 Sidney st., weaver.
Maguire, Patrick J., 35 Mead St., retired.
Mahoney, John J., 22 Burlington ave., clerk.
Mahoney, John P., 37 Laurel st., dealer.
Mahoney, Michael J., 550 Westford st., salesman.
Mahoney, Thomas, Jr., 46 Butterfield st., clerk.
Major, Frank A., 60 Rea st., second hand.
Maloney, James R., 97 Pleasant st., laborer.
Maloney, John J., 195 Pleasant st., barber.
Maloney, Michael J., 195 School st., gardener.
Mansfield, George F., 306 Wilder st., bookkeeper.
Mansur, Arthur F., 182 Andover st., retired.
Manseau, Videl Z., 158 Branch st., clerk.
Marchand, Joseph P., 18 Sargent st., machinist.

Marin, Joseph, 213 Pawtucket st., real estate.
Markham, Michael J., 78 Chauncey ave., liquor dealer.
Martell, Hormidas J., 799 Moody st., supt. wire works.
Marden, Philip S., 11 Fairview st., managing editor.
Martin, Edward F., 39 Durant st., retired.
Martin, John H., 196 Mt. Pleasant st., merchant.
Martin, John F., 45 Bartlett st., clerk.
Martin, Mizael, 2-500 Moody st., tailor.
Mason, Charles, 21 Belle ave., machinist.
Mason, Lewis, 28 Belle ave., machinist.
Matte, Edmond, 36 Gardner ave., tinsmith.
Maxwell, John F., 124 Hanks st., overseer.
May, Thomas, 1406 Varnum ave., gate tender.
Mayberry, Solomon S., 54 Jenness st., real estate.
McAleer, James E., 129 Llewellyn st., clerk.
McAloon, Fred F., 14 Pleasant st., weaver.
McAloon, John B., 112 Sixth st., weaver.
McAvoy, Thomas, 1 Fowler rd., dealer.
McBrayne, Lewis E., 6 Belmont st., asst. managing editor.
McCaffrey, John H., 186 Pleasant st., carpet weaver.
McCann, Patrick, 412 Lincoln st., dresser.
McCarron, Anthony, 142 Concord st., grocer.
McCarron, Philip J., 76 Concord st., grocer.
McCartin, Patrick, 116 Pleasant st., conductor.
McCarthy, Andrew, 656 Gorham st., advertising.
McCarthy, John P., 9 Pihl st., machinist.
McCarthy, John P., 744 Merrimack st., operative.
McCarthy, Timothy F., 28 Butterfield st., clerk.
McCarthy, James F., Jr., 28 Butterfield st., clerk.
McCluskey, Frank H., 7 Keene st., machinist.
McCluskey, William J., 7 Keene st., reporter.
McCormick, John E., 108 Livingston ave., clerk.
McCullough, John, 281 High st., grocer.
McDonald, John J., 208 Mt. Hope st., second hand.
McElholm, William H., 465 Westford st., plumber.
McElroy, George T., 157 Agawam st., painter.
McElroy, Samuel H., 15 Chestnut sq., operative.
McEvoy, Arthur M., 104 Tenth st., student.
McGauvran, William H., 172 School st., merchant.
McGenniss, James, 23 Read st., insurance.
McGilly, Patrick, 75 Hoyt ave., wool sorter.

McGlinchey, Michael, 84 Manchester st., grocer.
McGovern, Patrick, 32 Bartlett, shoemaker.
McGreevey, Thomas X., 216 Forest st., operative.
McGreevy, Eugene, 216 Foster st., clerk.
McHugh, Michael F., 258 Merrimack st., clerk.
McHugh, William E., 77 Fremont st., compositor.
McIninch, Robert J., 39 Chestnut sq., presser.
McIntyre, William G., 101 Norcross st., clerk.
McKenna, George B., 13 Cosgrove st., undertaker.
McKenna, George T., 64 Otis st., conductor.
McKenney, Charles H., 133 White st., engineer.
McKeon, James E., 15 Seventh ave., clerk.
McKinnon, Murdock, 1782 Middlesex st., marketman.
McMahon, Frank, 2 Brooks st., clerk.
McMahon, Joseph F., 456 Chelmsford st., plumber.
McMahon, Joseph H., 23 Fourth ave., conductor.
McMahon, William H., 90 White st., steamfitter.
McNabb, James S., 106 Pleasant st., laundryman.
McNabb, John H., 108 Pleasant st., laundry.
McOsker, Frank E., 576 School st., waiter
McOsker, George M., 17 Liberty st., barber.
McOsker, James F., 39 Grace st., tool maker.
McOsker, John J., 12 Andrews st., foreman.
McQuade, Arthur F., 11 Weschester st., fixer.
McQuade, Daniel E., 600 Andover st., dealer.
McQuaid, Arthur J., 197 Pleasant st., loomfixer.
McQuade, Hugh B., 10 Pleasant st., second hand.
McSorley, Christopher, 155 Fayette st., clerk.
McSorley, John F., 332 Wentworth ave., dealer.
Mealey, Frank L., 509 School st., copper stamps.
Meehan, Edward J., 289 Concord st., teamster.
Meehan, John P., 26 Cosgrove st., granite cutter.
Meehan, Joseph P., 196 Westford st., clerk.
Meloy, Fred'k F., 30 Fort Hill ave., contractor.
Mercier, Chester, 284 Stevens st., clerk.
Mercier, Ernest B., 38 Aiken ave., baker.
Mellen, Edward, 74 Pentucket ave., laborer.
Mellor, George H., 15 Belmont st., overseer.
Mercier, J. M. Eugene, 82 Fisher st., dealer.
Merrill, Herbert C., 157 Nesmith st., chemist.
Merritt, William H., 262 Concord st., bartender.

Mevis, George B., 869 Bridge st., merchant.
Miller, Charles H., 13 Harrison st., conductor.
Minahan, James H., 74 Aiken ave., operative.
Miskell, Martin J., 292 East Merrimack st., theatrical.
Mitten, Anthony D., 43 A st., blacksmith.
Mueller, George A., 91 Willie st., clerk.
Muldoon, Owen, 259 Branch st., laborer.
Murphy, Jeremiah F., 315 Summer st., manufacturer.
Molloy, Andrew, 339 Riverside st., Lowell Water Works.
Monahan, Patrick R., 39 West Fifth st., teamster.
Monette, Hector, 14 Eustis ave., teamster.
Monier, Raoul H., 64 Lilley ave., floorwalker.
Mongeau, George E., 444 Fletcher st., merchant.
Moody, Percy H., 173 Stackpole st., clerk.
Moran, John, 40 Alder st., machinist.
Morin, Ovila, 129 White st., dealer.
Morrisey, Frank T., 46 Albion st., dealer.
Mulcahy, M. Wilfred, 109 Rogers st., dealer.
Mullin, Frank, 14 Lundberg st., electrician.
Mullin, J. Eugene, 6 Bleachery st., insurance.
Mulcahey, Thomas E., 665 School st., painter.
Mullaney, John J., 25 Varney st., plumber.
Mullaney, Michael, 4 Litchfield terr., plumber.
Mulno, Harry O., 324 Boylston st., superintendent.
Mullen, Leon H., 33 Bourne st., clerk.
Mullen, Joseph, 23 Burt st., merchant.
Murphy, Frank, 52 Central st., laborer.
Murphy, James F., 35 Potter st., laborer.
Murphy, James A., 86 Hanks st., overseer.
Murray, John J., 128 Hoyt Ave., clerk.
Murphy, John F., 426 Varnum ave., farmer.
Murphy, Joseph F., 278 High st., printer.
Murphy, Thomas F., 189 Parker st., plumber.
Murphy, William J., 74 Agawam st., dealer.
Murray, Frank, 86 Fourth ave., blacksmith.
Murray, John, 139 Chapel st., clerk.
Muzzey, Walter L., 25 Fort Hill ave., salesman.
Myers, James W., 21 Albert st., assistant superintendent.
Myers, John Y., 104 South Whipple st., dealer.

N

Neeson, John J., 210 Cross st., machinist.
Nelson, James, 528 Andover st., supt.
Nestor, Patrick F., 348 Stackpole st., lamplighter.
Nichols, Henry J., 338 Varnum ave., gardener.
Normanden, Charles, 34 Hancock ave., tailor.
Novell, Maurice H., 3-449 Moody st., barber.
Nugent, Michael, 13 L st., operative.

O

Oates, William, 44 Crawford st., machinist.
O'Beirne, Thomas, 704 Merrimack st., overseer.
O'Brien, Daniel J., 90 Park View ave., real estate.
O'Brien, John J., 54 Pleasant st., slater.
O'Brien, Charles T., 162 Church st., laborer.
O'Brien, Joseph H., 768 Merrimack st., clerk.
O'Brien, William H., 94 Fort Hill ave., chiropodist.
O'Connell, Luke, 64 Fay st., retired.
O'Connell, William E., 183 Stackpole st., goldsmith.
O'Connell, Richard A., 505 Westford st., dealer.
O'Connor, Edward F., 251 Moore st., grocer.
O'Connor, John J., 298 Riverside st., contractor.
O'Connor, Thomas F., 823 Lawrence st., agent.
O'Donnell, Charles H., 33 Chapel st., wholesale cigars.
O'Dowd, Henry J., 423 High st., carriage dealer.
O'Dwyer, Jeremiah J., 148 Midland st., conductor.
O'Hagan, Michael, 29 Albion st., operative.
O'Hare, James, 27 Ellsworth st., teamster.
O'Hare, John P., 27 Abbott st., carpet weaver.
O'Hearn, Thomas B., 282 Riverside st., contractor.
O'Neil, Daniel P., 74 Weed st., manufacturer.
O'Neil, Arthur J., 386 Concord st., clerk.
O'Neill, James J., 129 Crowley st., cashier.
O'Neill, Peter, 120 Bowden st., carpenter.
Osgood, Daniel L., 151 Cabot st., overseer.
O'Shea, Michael, 149 Concord st., machinist.
O'Sullivan, Timothy F., 195 Cross st., manager.
Osterhout, Fred S., 123 Westford st., commercial traveler.
Ouellette, Stephen, 50 Lamb st., operative.

P

Palmer, Forrest E., 1 Barton ave., bookkeeper.
Paradis, Peter, 526 School st., barber.
Parent, Philias, 7 Whiting st., machinist.
Parker, Percy, 880 Broadway, capitalist.
Patenaude, Charles S., 233 Walker st., engraver.
Parthenais, David A., 30 Phillips st., clerk.
Patten, Henry N., 235 Mammoth rd., bookkeeper.
Patten, William T., 205 Mammoth rd., dealer.
Payette, Adelard, 20 James st., retired.
Payette, Joseph, 31 Gershom ave., tailor.
Payne, John, 181 Stackpole st., dealer.
Pearson, George F., 24 Grace st., clerk.
Pascall, Frederick, 58 Carlisle st., machinist.
Perkins, Stewart, 43 Gates st., barber.
Perley, George E., 79 Florence ave., bank teller.
Perreault, David, 616 Stevens st., jeweler.
Perreault, Arthur C., 199 Stackpole st., tanner.
Perreault, George H., 90 Aiken st., salesman.
Perreault, Oscar A., 8-51 Brookings st., clerk.
Perron, Joseph, 315 Summer st., barber.
Person, Nils, 82 London st., carpenter.
Phelps, John L., 1-29 Boynton st., carpenter.
Phornare, Anthony, 35 Burns st., clerk.
Pickering, Samuel A., 59 Hastings st., carpenter.
Pickering, George L., 27 Butterfield st., carpenter.
Pinkham, Arthur S., 27 Harrison st., publicity manager.
Piper, Fred, 15 Bellevue st., clerk.
Plaisted, Burton W., 110 Warwick st., clerk.
Pollard, Harry G., 96 Mansur st., merchant.
Potter, William H., 251 Gibson st., cigar and tobacco dealer.
Power, Warren M., 73 Fletcher st., editor.
Preston, Charles R., 201-203 Appleton st., civil engineer.
Preston, James F., 403 Andover st., treasurer.
Primeau, John, 883 Lakeview ave., motorman.
Prince, Arthur D., 5 Simpson st., merchant.
Proctor, Charles S., 187 Hovey st., paper dealer.
Proctor, Frank D., 248 Foster st., clerk.
Putnam, Addison, 70 Fairmount st., merchant.
Putnam, Alonzo, Jr., 19 Eighth ave., salesman.

Putnam, Frank H., 12 Marlborough st., dealer.
Putnam, Lewis A., 19 Eighth ave., clerk.
Peltier, Willis, 801 Moody st., jeweller.

Q

Queenan, Eugene C., 48 Varney st., clerk.
Queenan, James J., 5 Harrison st., clerk.
Quigley, John M., 62 Inland st., teamster.
Quill, Daniel, 85 Ellis ct., barber.
Quimby, Henry F., 105 Chestnut st., electrician.
Quinn, Felix, Jr., 67 Bartlett st., laborer.
Quinn, Timothy, 109 Sherman st., foreman.
Quirbach, Henry C., 21 Fairfax ave., cigar maker.

R

Racette, John, 527 Moody st., manufacturer.
Rafferty, Michael T., 15 Auburn st., hack driver.
Ralls, Austin, 36 Third ave., clerk.
Ranlett, Fred M., 445 Merrimack st., dealer.
Rawling, Frank, 11 Linwood st., machinist.
Ready, Frank E., 221 Hildreth st., carpenter.
Ready, John J., 193 East Merrimack, operative.
Ready, Patrick J., 26 Saratoga st., tanner.
Ready, William B., 10 Bertha st., barber.
Ready, William E., 67 Walker st., dealer.
Riensterna, Torsten, 43 Sidney st., wool sorter.
Regan, Michael J., 649 School st., motorman.
Regan, Peter J., 316 Rogers st., laborer.
Regan, Denis, 27 Windsor st., checker.
Reilley, Timothy, 32 High st., barber.
Reilley, Peter W., 137 Hovey st., printer.
Renaud, Willie, 32 Apple st., laborer.
Reynolds, Michael, 139 Chapel st., expressman.
Ricard, Francois Xavier, 420 Fletcher st., jeweler.
Richards, Charles H., 23 Fort Hill ave., collector.
Richards, John B., 770 Moody st., clerk.
Richards, Lyman H., 170 Crawford st., carpenter.
Richburg, William H., 232 Varnum ave., shoe cutter.
Rigby, William H., 19 Seventh ave., superintendent.
Riley, Charles, 65 Chestnut st., smoke inspector.

Riley, Luke J., 101 Third st., barber.
Riley, William, 43 Prospect st., garage.
Riordan, George J., 9 Robert st., water works.
Riordon, Warren P., 21 Orchard st., sealer.
Rivet, Francis L., 484 Moody st., dealer.
Roach, Henry A., 211 Methuen st., retired.
Roach, Patrick Francis, 85 Moore st., bookkeeper.
Roark, James S., 210 Parker st., plumber.
Roark, John J., 210 Parker st., clerk.
Robertson, William L., 468 Andover st., merchant.
Robertson, John L., 470 Andover st., furniture dealer.
Robinson, William S., 40 Crowley st., U. S. C. Co.
Rogers, John F., 29 Cedar st., undertaker.
Rooney, John J., 238 Pine st., superintendent.
Rooney, James H., 238 Pine st., dentist.
Rourke, John, 9 Sixth ave., janitor.
Rosseau, Willie, 14 Spaulding, dealer.
Rousseau, Arthur, 14 Spaulding, carpenter.
Rousseau, Napoleon C., 332 East Merrimack st., clerk.
Roux, J. Arthur, 9 White st., contractor.
Rowe, Thomas H., 97 Varney st., clerk.
Rowland, Charles T., 5 Belmont st., wholesale grocer.
Roy, Joseph G., 87 Chestnut st., salesman.
Royal, Garrett G., 32 Phillips st., operative.
Runels, George H., 240 Gibson st., real estate.
Runels, Ralph E., 4 Harland ave., dealer.
Russell, John L., 17 Victoria st., manager.
Ryan, Albert J., 756 Westford st., real estate.
Ryan, Daniel G., 97 Humphrey st., contractor.
Ryan, Patrick, 46 Birch st., clerk.
Ryan, Thomas S., 42 Sidney st., printer.
Robbins, George L., 20 Willow st., engineer.
Rousseau, Ferdinand, 691 Merrimack st., machinist.
Ryan, Stephen J., 73 Stevens st., hatter.

S

Sadlier, George E., 46 Keene st., clerk.
Sadlier, William F., 194 Meadowcroft st., inspector.
Safford, Arthur T., 266 Andover st., engineer.
Sanderson, George, 505 Moody st., operative.

Sanderson, George W., 137 Stackpole st., clerk.
Sargent, George A., 49 Andoyer st., lineman.
Sarre, Louis, 238 Wilder st., dealer.
Sarre, Leon E., 842 Varnum ave., picture framing.
Saunders, Thomas A., 325 Mammoth rd., agent.
Sayers, John F., 13 Rockdale ave., conductor.
Savard, Aime E., 311 Mammoth rd., baker.
Savard, John, 717 Middlesex st., machinist.
Scannell, Bartholomew, 535 Westford st., manufacturer.
Scannell, William J., 62 Cambridge st., boiler maker.
Scott, George N., 238 Chelmsford st., woodworker.
Scott, John, 23 Meadowcroft st., janitor.
Scott, William C., 58 East Merrimack st., machinist.
Scott, W. Norman, 732 Stevens st., bookkeeper.
Scribner, George A., 158 Westford st., machinery dealer.
Sealey, Eldridge N., 120 High st., engineer.
Secord, Freeland, 3-49 Wilder st., D. L. Gage Co.
Senter, Arthur H., 238 Cabot st., carpenter.
Sharkey, John W., 8 Carter st., salesman.
Sharkey, Michael J., 159 Smith st., real estate dealer.
Sheehan, James, 105 Andrews st., U. S. B. Co.
Sheehan, James A., 30 Fort Hill ave., clerk.
Sheahan, Michael J., 46 Agawam st., conductor.
Sheehy, James, 3 Pleasant st., provision clerk.
Shepard, Charles S., 100 Hanks st., steam fitter.
Sherman, Arthur W., 12 Chester st., clerk.
Sherman, Leonard F., 148 Princeton st., shoe manufacturer.
Sherwell, William M., 2 Barton ave., paymaster.
Sicard, Armand V., 720 Moody st., shoemaker.
Sicard, Jean B., 130 Avon st., dealer.
Silecox, Samuel, 19 Robert st., machinist.
Silver, Fred W., 94 So. Loring st., machinist.
Simmons, Ralph A., 128 Westford st., clerk.
Slattery, Charles D., 73 Pleasant st., clerk.
Slattery, Edward F., Jr., 122 Hoyt ave., real estate.
Smith, Charles P., 314 Nesmith st., real estate.
Smith, Chester F., 250 Foster st., travelling man.
Smith, Edward A., 425 Broadway st., machinist.
Smith, Henry A., 42 Mansur st., insurance.
Smith, Henry, 37 Varnum st., barber.
Smith, Omer, 90 Aiken st., janitor.

Smith, Orange V., 812 Stevens st., machinist.
Smith, Thomas M., 198 Holyrood ave., clerk.
Smith, Walter, 36 State st., machine repairer.
Smith, William F., 58 Seventh st., machinist.
Smithson, Angelo L., 5 Myrtle st., overseer.
Somerset, Alfred J., 104 Woodward ave., clerk.
Somerset, James, 104 Woodward ave., janitor.
Southam, Brook, 130 Westford st., overseer.
Spence, George T., 236 Chelmsford st., mfrgr.
Stanley, Harry L., 135 Beacon st., coal dealer.
Stanton, John B., 23 Newhall st., wool sorter.
Starr, George S., 144 High st., weaver.
Stearns, Frank K., 122 Eleventh st., laundry.
St. Cyr, Adelard, 110 Bartlett st., fireman.
St. Hilaire, Arthur, 110 Ford st., operative.
St. Hillaire, James, 15 Second ave., mason.
St. Onge, Alexandre, 406 Stevens st., baker.
Stone, Edward F., 60 Lawrence Corp., Race st., operative.
Sturtevant, Augustus L., 32 Brookside st., clerk.
Stafford, William, 787 Moody st., clerk.
Stewart, Arthur A., 53 Mt. Hope st., instructor.
Surprenant, Joseph, 537 Moody st., dealer.
Silcox, Albert E., 45 Dunfey st., machinist.
Sullivan, Daniel, 105 Moore st., merchant.
Sullivan, Daniel T., 223 Stackpole st., dealer.
Sullivan, Eugene, 55 Bartlett st., tailor.
Sullivan, George S., 33 Butterfield st., clerk.
Sullivan, Eugene P., 84 Maple st., primer.
Sullivan, John E., 58 Corbett st., B. & M. R. R.
Sullivan, John J., Jr., 114 Beech st., agent.
Sullivan, Michael, 57 Hampstead, grocer.
Sullivan, Richard H., 28 Franklin st., teamster.
Sullivan, Thomas, A. D., 28 Grove st., dealer.
Sullivan, William H., 724 Bridge st., fish dealer.
Sullivan, William J., 17 Bowers st., plumber.
Sykes, Richard, 21 Rockingham st., overseer.

T

Tansey, John F., 322 East Merrimack st., coachman.
Taylor, Samuel A., 12 Chase ave., watchman.

Tellier, Alderic, 236 White st., clerk.
Thibeault, Archie, 68 Lane st., clerk.
Thomas, Charles R., 725 Stevens st., upholsterer.
Thomas, John, 45 Tolman ave., teamster.
Thomas, Robert R., 24 Loring st., electrician.
Thompson, James A., 68 Grove st., box manufacturer.
Thompson, Martin B., 242 Cabot st., overseer.
Thompson, Samuel H., 121 School st., hardware.
Thorpe, James, 100 Riverside st., treasurer Glass Co.
Tighe, Edward J., 72 Chestnut st., shoe cutter.
Toomey, Eugene F., 170 Lawrence st., clerk.
Toupin, Hercule A., 320 Hildreth st., druggist.
Tracy, James H., 147 Concord st., laborer.
Tremblay, Onesime, 17 James st., operative.
Trepanier, J. Edmond, 11 Willie ave., piper.
Trull, George T., 752 Andover st., student.
Tryon, Edward R., 182 Riverside st., salesman.
Turcotte, Arthur E., 553 Fletcher st., clerk.
Turcotte, Louis P., 553 Fletcher st., liquor dealer.
Turcotte, Oswald, 33 Ellis ct., baker.
Trottier, William, 60 Hampshire st., journalist.
Tully, John J., 17 So. Whipple st., clerk.
Tuttle, Joseph T., 3 Dane ave., clerk.
Turgeon, Philippe, 50 Chestnut st., machinist.
Twohey, Edward, 14 Madison st., contractor.
Tyler, William H., 30 Epping st., gardener.

V

Vandenberg, William C., 386 Andover st., insurance.
Veevers, Miles, 218 Moore st., agent.
Vigeant, Paul, 48 Riverside st., grain dealer.
Viney, William B., 22 Tyler st., clerk.
Voisard, Hector, 99 White st., clerk.
Vaughan, John H., 14 Leverett st., boiler maker.

W

Wadleigh, Jude C., 305 Andover st., mill agent.
Walker, George H., 153 Winthrop ave., clerk.
Walker, Everett H., 121 Hall st., agent.

Walker, Hugh G., 18 Pihl st., clerk.
Walker, Roger L., 80 Chestnut st., clerk.
Walker, Thomas C., 80 Chestnut st., druggist.
Walmsley, John, 8 Waterford st., clerk.
Warnock, Francis A., 13 Wamesit st., plasterer.
Watson, Henry L., 84 Rolfe st., printer.
Watson, Peter, 84 Rolfe st., printer.
Webster, Herbert C., 428 Rogers st., toolmaker.
Weilbrenner, Pierre L. H., 284 Branch st., clerk.
Welch, Andrew, 353 Bridge st., laborer.
Welch, Benjamin F., 160 Shaw st., foreman.
Welch, Richard J., 543 Andover st., plumber.
Welch, John F., 70 Livingston ave., plumber.
Welch, Martin F., 64 Pleasant st., tanner.
Welch, Frederick F., 30 Riverside st., cabinet maker.
Wells, Arthur, 11 Harding st., watchman.
Wentworth, Ansel W., 35 Woodward ave., operative.
Westall, William E., 63 Dover st., merchant.
Weston, Charles F., 32 Colonial ave., belt maker.
Whitcomb, Irving, 282 Appleton st., clerk.
White, James A., 154 A st., agent.
White, John F., 9 Grace st., clerk.
White, William T., 86 Belmont ave., manufacturer of leather.
Whitney, Walter, 8 Livermore st., machinist.
Whittet, David W., 34 Wentworth ave., carpenter.
Whittier, Stephen T., 26 Hanks st., paymaster.
Wilde, Thomas E., 1198 Lawrence st., manager.
Wilder, Wesley M., 24 Coral st., hay and grain dealer.
Wilder, William H., 187 Pleasant st., woolen weaver.
Wilder, William F., 20 Huntington st., plumber.
Willman, Clarence T., 36 Chambers st., spinner.
Wilmot, Alexander W., 129 Ennell st., overseer.
Wilmot, Joseph, 52 Crawford st., superintendent.
Wing, Charles H., 577 School st., merchant.
Winn, John J., 29 So. Whipple st., mattress maker.
Wood, Joseph W., 76 Campaw st., conductor.
Woodcock, William, 17 Crescent st., second hand.
Worsnip, Robert S., 850 Lakeview ave., spinner.
Wyman, Alonzo, 53 Bartlett st., machinist.
Wyman, Stephen T., 185 Stackpole st., city library.

Y

Young, Charles M., 351 Parker st., undertaker.

Young, Charles F., 627 Central st., decorator.

Young, William, 430 Lakeview ave., piper.

Z

Ziskind, David, 75 Gates st., dealer.

HUGH C. McOSKER,

J. OMER ALLARD,

FRED HARRISON,

STEPHEN FLYNN,

Board of Registrars of Voters.

ANNUAL REPORT
OF THE
POLICE DEPARTMENT
OF THE
CITY OF LOWELL
MASSACHUSETTS



1918

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1907

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ANNUAL REPORT

OFFICE OF THE SUPERINTENDENT OF POLICE,
Lowell, Mass., January 31, 1918

HON. PERRY D. THOMPSON,
Mayor and Commissioner of Public Safety,
Lowell, Massachusetts.

DEAR SIR:

I most respectfully present to you a report of the work performed by the police department for the fiscal year ending December 31, 1918.

Respectfully yours,
REDMOND WELCH,
Superintendent of Police.

The organization of the police department for the year ending December 31, 1918, was as follows:

Superintendent, Deputy Superintendent, two Captains, six Lieutenants, seven Sergeants, one Inspector, one hundred twenty-six regular patrolmen, twenty-six Reserve Officers, one special police woman, one electrician, one line man, four chauffeurs, one matron, one stenographer, one desk man, one charman, one stableman.
Population estimated, 125,000. Area, 14.1 square miles.
Accepted streets, 144.08 miles. Unaccepted streets, 73 miles.
Appropriation for year, \$210,610.60.

APPOINTMENTS

The following named were appointed to the reserve force during the year 1918 :

Owen S. Conway, Donat J. Brunelle, Timothy Riordan, John J. McManus, Patrick S. Leavitt.

Miss Emily M. Skilton was appointed police woman.

PROMOTIONS

The following promotions were made during the year 1918.
David Petrie from the rank of Sergeant to the rank of Lieutenant.
Bartholomew Ryan from the rank of Sergeant to the rank of Lieutenant.
Philip Dwyer from court officer to the rank of Sergeant.
Patrick J. Frawley, from wagon officer to the rank of Sergeant.
Peter P. McManmon from Patrolman to the rank of Sergeant.
George B. Palmer from Patrolman to the rank of Sergeant.

RESIGNATION

Patrolman Henry E. Somers resigned June 18, 1918

Necrology

Officer George S. Abbott died September 9, 1918

Born in England July 4, 1869.

Appointed to the force, June 15, 1898

Officer Michael J. Clancy died October 12, 1918

Born in Ireland, January, 1873.]

Appointed to the force, March 19, 1901

1871

STATISTICAL REPORT

OF THE

Lowell Police Department

JANUARY 1, 1918 TO DECEMBER 31, 1918

RECORD OF ARRESTS, 1918

AGAINST PUBLIC ORDER

OFFENCES	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
Abortion.....								1		1			2
Adultery.....	6	3	4	6	10	7	2	5	4	3	2		58
Aiding and abetting soldier in purchase of liquor.....	8	4	2	4	31	53	23	34	37	18	47	33	294
Auto law, violating.....	1	1	4	4	9	12	46	32	24	19	12	5	168
Bastardy.....	3		2	1	1	3	2	2	1		3	1	18
Being present where gaming im- plements were found.....	17	55	4	10				15		1		4	106
Being present at a game on the Lord's Day.....	38	22		40	14	10	23	28	24	48	25	31	303
Capias.....	3	9	6	3	5	3	5	6	3	5	4	4	56
Carrying weapons.....	3	1	1	1	2	1	2	7	2	1			21
Contempt of court.....				1			2						
City Ordinance, violating.....	1	1		1		14	3	11	6	2	4	1	44
Cruelty to animals.....	1	1			1					2	1		6
Deserter from U. S. Army.....				2		2	2	1		2	2	1	12
Delinquents.....	5	15	21	13	6	12	36	13	9	21	14	10	175
Disturbing the peace.....	2	4	4			2	3	5	2	4	4		31
Disturbing public meeting.....												3	3
Dog, keeping unlicensed.....					1		2		1		1	1	6
Drunkenness.....	212	212	323	193	304	328	282	337	425	463	426	400	3905
Escaped from prison.....	2		1	2	3		1	3			1	3	16
False registration at hotel.....								1					1
Failing to register in the draft...				4				1	1	2			8
Failure to engage in useful occu- pation.....								9	6	5	4		24
Failure to file questionnaire.....						5	2						7
Fornication.....	10	7	10	4	2	3	4	3	2	11	9	2	67
Fugitive from justice.....				2									2
Gambling.....							6		1	7	1		15
Giving false weight.....		4											4
Holding himself out as a prac- titioner.....			9						5				14
Hunting law, violation.....													
Idle and vicious life.....									1	3			4
Idle and disorderly.....								2					2
Indecent exposure.....											1		1
Infant, abandoning.....								1					1
Interfering with officer.....				1								1	2
Interfering with enlistments....											1		1
Insane.....	1	1			1	1	1						5
Keeping disorderly house.....						1	1						2
Keeping open shop on Lord's Day.....			1		1			1	1			1	5
Lewd cohabitation.....	2	2	4	4		5		2	1	17	3		40
Labor law, violation of.....					1	4						5	10
Lewdness.....	1	4	11	1	7	5	6	2	8	3	1	1	50
Liquor law, violation of.....	1	2			1	3	1	2	2	5		4	21
Maintaining gaming resort.....	2			2				1				2	7
Milk law, violation of.....				1	1		3	4	6	2		9	26
Neglected children.....	6	12	8	3	4			1	1		6	16	51
Neglect of family.....	18	12	11	9	15	19	17	13	15	14	12	11	166
Opium law, violation of.....								2					2
Permitting gaming apparatus on premises.....	24												24
Permitting minor to loiter in pool room.....				3	1						1	1	6
Polygamy.....								1		2			3
Procuring woman for prostitu- tion.....		1								1			2
Playing game on Lord's Day....	20		18		5			5	1				49
Plumbing law, violation of.....			2										2
Profanity.....	1												1
Pure food law, violation of.....	6	1			1	2	3	2			11	2	28
Safe keeping.....	12	33	28	24	83	78	75	105	99	99	165	112	913
School law, violation of.....		1											1
Stubbornness.....		3	4	4	6	3	14	7	1	4	9	7	62
Surrendered by bondsman.....				1		1	1						3
Suspicious person.....	35	22	20	9	30	14	19	22	16	12	12	16	227
Truancy.....			3	4	5	2							14
Vagrants.....	2		2		3	2	3			2		2	10
Total.....	443	435	503	357	553	596	588	689	705	780	787	686	7122

AGAINST THE PERSON

OFFENCES	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
Assault and battery	17	5	15	13	27	12	26	34	24	18	11	15	217
Assault with a dangerous weapon		2											2
Assault with a knife			3	3			1						7
Assault on an officer		1			2		1	3	1				8
Manslaughter	1	1		3	4	3	1	2	6	6	3		30
Murder, Attempt	1			1									2
Murder				1							1		2
Rape, Attempt							1					1	
Rape	1					1		1					3
Robbery, Attempt										4		3	7
Robbery		1	2				3	5					11
Threats	1	3		4	2		2	5			2	1	20
Unnatural Act									1				1
Total	21	13	20	25	35	16	34	51	32	28	17	19	311

AGAINST THE PROPERTY

	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
Arson						1	•						1
Attempt, Larceny						2	3				1		6
Attempt, breaking and entering				2									3
Breaking and entering	3	5	1	9	7	9	9	1	1	6	8	18	77
Fraudulently obtaining money										1			1
Larceny	19	18	30	26	26	46	34	39	28	27	44	41	378
Malicious injury to property		1	2				2				1	4	10
Matches not kept in proper receptacle					1								1
Receiving stolen goods	2	3	8	1	1	2				2	3	1	23
Removing baggage									1			1	2
Riding bicycle on sidewalk								2					2
Riding freight					4								4
Sale, mortgaged property					3		1				3	1	8
Suspicion of larceny	1	1						1	2	1			6
Trespass			1	2	2	2	3	5	2	1			18
Unlawfully taking a team						2			1				3
Unlawfully using an automobile						1	2						3
Walking on railroad tracks							9	1					10
Total	25	28	42	40	44	65	63	49	36	38	60	66	556

DISTRIBUTION OF OFFENCES ACCORDING TO SEX

	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
Men.....	427	383	435	350	498	581	517	653	656	674	749	676	6601
Women.....	42	37	69	26	41	29	36	42	57	65	45	42	531
Minors.....	20	34	61	46	93	67	132	94	60	107	70	53	857
Delinquents.....	3	15	21	13	6	12	36	13	9	21	14	10	175
Total.....	494	491	586	435	638	689	721	802	782	867	878	781	8164

DISTRIBUTION OF OFFENCES ACCORDING TO NATIONALITY

	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
United States.....	206	238	292	213	35	350	395	412	406	452	479	444	4238
England.....	10	10	10	10	12	28	24	14	18	18	17	16	187
Ireland.....	60	58	111	52	84	107	85	95	136	132	130	125	1175
Scotland.....	7	2	6	9	5	9	5	2	5	8	10	5	73
British Provinces.....	62	56	49	38	87	69	82	121	88	117	10	83	962
Greek.....	79	53	10	38	17	19	16	37	17	18	18	48	370
Russia.....	23	35	32	30	18	37	34	39	50	44	59	21	424
Turkish Empire.....	2	3	3	8	7	16	15	11	5	7	5	3	85
Miscellaneous.....	38	21	52	24	51	42	29	58	48	50	36	26	475
Total.....	489	476	565	422	632	677	685	789	773	846	864	771	7989

DISTRIBUTION OF OFFENCES ACCORDING TO TRADES AND PROFESSIONS

	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
Building Trades.....	12	22	16	10	32	32	26	36	31	24	33	35	309
Mechanical Trades.....	31	35	43	36	40	41	40	45	45	51	59	52	518
Mill and Factory.....	151	156	152	145	142	170	195	220	219	247	221	202	2320
Shops and Stores.....	73	43	26	28	38	55	61	54	55	57	60	60	610
Professional.....	5	3		1	3	5	4	3	2	8		10	44
Agricultural.....	5	6	1	3	10	8	11	8	13	7	13	6	91
Clothing and Garb.....	2								2				4
Agents, etc.....	1	5	5		1	3		8	1	2	7		33
Laborers.....	152	116	187	112	208	192	177	227	213	265	308	185	2241
Service Domestic, etc.....	20	21	48	20	37	23	22	24	24	26	18	19	302
Transportation.....	12	13	28	19	19	32	31	36	48	34	39	37	348
Children.....	5	29	30	28	18	10	43	4	13	21	26	30	257
None.....	8		8		6			29					51
Miscellaneous.....		2	3	5	19	50	22	10	28	18	26	25	208
Soldiers.....	12	25	18	15	59	56	53	82	79	84	153	103	741
Sailors.....								3		2	1	6	12
Total.....	489	476	565	422	632	677	685	789	773	846	864	771	7989

DIVISIONAL REPORT

OF THE

Lowell Police Department

JANUARY 1, 1918 TO DECEMBER 31, 1918

MONTHLY REPORT OF PATROLMEN, 1918

	Jan.	Feb.	March	April	May	June	July	August	Sept.	Oct.	Nov.	Dec.	Total
Persons assisted home drunk . . .	35	18	31	5	11	35	19	15	14	38	19	24	264
Persons arrested	198	203	262	142	282	269	267	298	312	288	340	351	3212
Violation of liquor law					1					1			2
Buildings found open and secured	79	60	70	69	94	66	64	76	76	65	103	100	922
Defective streets and sidewalks .	2		10	33	26	24	9	8	15	6	9	5	158
Fire alarm given				2	1		2	1	2	1	1	1	11
Lost children restored	4	6	7	14	19	15	11	6	10	9	3	13	117
Value of stolen property recovered	\$235.00	\$4.50	\$96.28	\$109.50	\$55.00	\$212.00	\$91.81	\$106.27	\$35.00	\$22.00	\$335.00	\$125.00	\$1427.36
Gas lights not burning	574	445	188	59	13	22	28	12	32	69	74	85	1601
Electric lights out	363	204	328	147	130	111	121	101	173	392	307	377	2754
Teams put up and cared for . . .		2	5	1		1	3	2	2	2	4	2	2
Obstruction not lighted		3	3		3	1	3		3	3	1	7	29
Obstruction removed	3	3		1		1			3			1	16
Disturbances quelled	30	22	27	8	33	36	40	22	20	42	37	32	349
Sudden death	1		3	1		1	1	1		2			11

MONTHLY REPORT OF KEEPER OF LOCKUP, 1918

	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
Money taken from prisoners	\$2457.03	\$1923.60	\$2424.18	\$1802.24	\$2123.72	\$2812.46	\$2581.37	\$3544.58	\$4190.64	\$4847.66	\$3590.43	\$3111.17	\$45409.08
Defective streets and sidewalks . .		6	31	22	25	21	10	21	14	5	13	5	173
Obstructions removed from sts . .				1		3		2					6
Stores found unlocked	75	48	78	78		89	62	83	87	96	99	106	901
Lost children restored to parents .				4		1	7	2					14
Stray teams found and put up . .		4	3		2	1	2	1	1	1	1		16

MONTHLY REPORT OF POLICE MATRON OF ARRESTS OF WOMEN, 1918

	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
Adultery.....	3	2	2	2	6	3	2	2	1	1			24
Aiding and abetting a soldier in purchase of liquor.....				1	2	1		2	1	1		3	10
Assault and battery.....			2			1	1	1	1				6
Capias.....											1		3
Contempt of court.....												1	1
Drunkenness.....	14	23	31	16	24	16	28	31	35	35	34	33	320
Disturbing the peace.....							1	2		5	4	1	2
Fornication.....	3	3	4	2		2		3					28
Insane.....	1												1
Idle and disorderly.....	1												1
Larceny.....	1	2	1	1		3	3	3		2	4	6	3
Lewd cohabitation.....	1		3			1				4	1		28
Lewdness.....	1	8	5	2	5	7	4	5	2	8	1	1	16
Manslaughter.....									1				43
Non-support.....		1				1	2	1					1
Polygamy.....										1			5
Receiving stolen goods.....										1			1
Stubbornness.....		1	1	1	4	3	2	3		2	2	1	1
Trespass.....								1	2				20
Violation liquor law.....									2	1			3
Total.....	28	43	53	30	43	40	48	62	54	68	53	50	572
Minors.....	2	7	3	6	6	5	8	11	6	11	6	5	76
Money taken from and returned to prisoners.....	\$6.41	\$53.94	\$603.90	\$34.69	\$90.12	\$55.19	\$41.02	\$38.55	\$917.33	\$134.58	\$23.43	\$78.00	\$2077.16

REPORT OF CRIMINAL BUREAU OF INVESTIGATION FOR 1919

MONTH	Arrests	Lost & Stolen	Recovered	Still Missing
January.....	31	\$700.00	\$644.00	\$55.00
February.....	27	765.00	720.00	45.00
March.....	28	815.00	745.00	70.00
April.....	29	642.00	520.00	122.00
May.....	26	545.00	490.00	55.00
June.....	24	460.00	380.00	80.00
July.....	23	670.00	540.00	130.00
August.....	28	640.00	550.00	90.00
September.....	25	574.00	475.00	99.00
October.....	29	605.00	578.00	27.00
November.....	26	710.00	660.00	50.00
December.....	34	795.00	740.00	55.00
Totals.....	330	\$7,921.00	\$7,042.00	\$879.00

RECOVERED FOR OTHER CITIES

Lawrence, Mass.....	\$2,675.00	Nashua, N. H.....	\$500.00
Manchester, N. H.....	1,275.00	Malden, Mass.....	525.00
Biddeford, Me.....	200.00	Concord, N. H.....	550.00
		Total.....	\$5,725.00

ARRESTED FOR OTHER CITIES AND TOWNS

Providence, R I.....	2	Lawrence, Mass.....	3
Manchester, N. H.....	7	Ayer, Mass.....	1
Montpelier.....	1	Boston, Mass.....	5
Nashua, N. H.....	2	Stoughton, Mass.....	1
New Haven, Conn.....	1	Concord, Mass.....	1
Natick, Mass.....	1	Peabody, Mass.....	1
Springfield, Mass.....	1	Ipswich, Mass.....	1
Methuen, Mass.....	1	Biddeford, Me.....	2
Lexington, Mass.....	1		

Respectfully submitted,

JAMES BROSNAN,

Captain of Police.

REPORT OF SIGNAL SYSTEM

MONTH	Duty Calls	Telephone	Wagon	Prisoners	Miles
January	38,016	3,693	209	305	242
February	34,165	3,612	200	302	224
March	38,700	3,854	290	381	356
April	37,975	3,562	199	256	269
May	36,899	3,691	324	411	411
June	34,952	3,534	361	467	433
July	35,026	3,410	308	397	426
August	34,332	3,520	405	538	516
September	34,144	3,400	394	524	483
October	33,026	3,888	467	557	584
November	34,356	3,860	468	639	548
December	37,272	3,812	377	485	428
Totals	428,863	43,836	4,002	5,262	4,920



